WONDERLAND 97

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A WASHINGTON
ROAD.

Wonderland '97

by

OLIN D. WHEELER.

A Story of the Northwest

In which is
given some account of its

History, Forests, Mountains, Fishing,
Parks, General Scenery, Mining,
Agriculture, Grazing, and Cities

Along the

Northern Pacific Railway.

ILLUSTRATED.

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By CHAS. S. FEE, General Passenger and Ticket Agent
Northern Pacific Railway,
St. Paul.

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THE GREAT NORTHWEST

"I will never vote one cent from the public treasury to place the Pacific Coast one inch nearer to Boston than it is now."—DANIEL WEBSTER, in U. S. Senate Chamber, 1844.

IN 1803 France sold and ceded to the United States, greatly to Spain's chagrin, and in defiance of an express agreement to the contrary, what was known as Louisiana. In the United States this transaction is known as the Louisiana Purchase. Consistent with the scant geographical knowledge of that period, the limits of this territory were but vaguely defined. In a general way they were as follows: The Mississippi River from its mouth to the forty-ninth parallel of latitude — the present boundary line between the United States and Manitoba, British Columbia, etc. — formed the boundary on the east; the forty-ninth parallel from Lake of the Woods to the Pacific Ocean, on the north; on the west, the Pacific Ocean to the forty-second parallel of latitude, or to the present southern boundary line of Oregon; thence eastwardly along the forty-second parallel, approximately to the Rocky Mountains, thence in an irregular southeastern line to the mouth of the Sabine River which constitutes part of the western boundary of the present State of Louisiana; thence along Gulf of Mexico to point of beginning. I quote the following from Brower's recently published "The Missouri River":

Louisiana, area, in 1803, acres	766,733,440
(Reduced from Wheeler's square mile estimate.)	
Stipulated price	$ 15,000,000
Price per acre, a fraction less than 2 cents.	
Price per section of 640 acres each	$ 12 52
Value at the Government price, $1.25 per acre	$958,416,800

By the census of 1890 there were more than 12,000,000 inhabitants within the limits of the Louisiana Purchase, or just about twice as many as the *total population* of the United States *at the time of the purchase.*

It will be noted that the Louisiana Purchase included the Northwest, and the peculiar history of the ancient Louisiana is fraught with important consequences and most intimately related to the latter region. In

the long, tedious, and stubborn diplomatic fight between the United States and Great Britain over the title to Oregon, the title to this region which vested in Spain through her discoveries in the fifteenth and sixteenth centuries, and which was transferred by her to France and acquired by the United States through the Louisiana Purchase, cut an important figure.

It was about twenty-seven years after the purchase of this territory before the first locomotive was used in the United States. Now, there are, within the limits of Minnesota, North Dakota, Montana, Idaho, Washington, and Oregon — States which are a part of the old Louisiana, and now traversed by the Northern Pacific Railway — about 17,000 miles of railway. Furthermore, every transcontinental railway in the United States crosses a portion of the old purchase, and four of them do so for very long distances.

President Jefferson determined that the larger part of this region should be explored. Through his efforts Captains Lewis and Clark, at the head of an expedition left St. Louis early in 1804, ascended the Missouri River, crossed the mountains, descended the Columbia to the Pacific, recrossed the mountains and returned late in 1806. So thoroughly was their work done, that to this day it stands as the greatest exploration ever attempted by the United States.

In the later development of this country the Northern Pacific Railway has proved an important agency. Starting from the head of navigation on both the Mississippi River and Lake Superior, it follows some of the largest water courses through the heart of the Northwest. Prominent among these are the Mississippi, Yellowstone, Missouri, Clark Fork of the Columbia, Yakima, Columbia, and Willamette rivers. It reaches tidewater on the Pacific Coast at Tacoma, Seattle, and Portland. It has opened one of the most valuable sections of the United States. Wide spreading prairies; grazing lands of vast extent; the richest of irrigable valleys; mineral regions of fabulous wealth; timber lands beyond the conception of ordinary mortals; orchard and garden spots marvelously fertile, and fisheries of varied sorts are tributary to this great artery of commerce.

WISCONSIN.

While by far the major portion of the Northern Pacific Railway lies in the old Louisiana Purchase, that part of it eastward from Brainerd to Duluth, Minn., and Superior and Ashland in Wisconsin, is outside of it.

Wisconsin once included a considerable portion of the lands west of it, and was itself formerly included in the Territory of Michigan. It became a State in 1848.

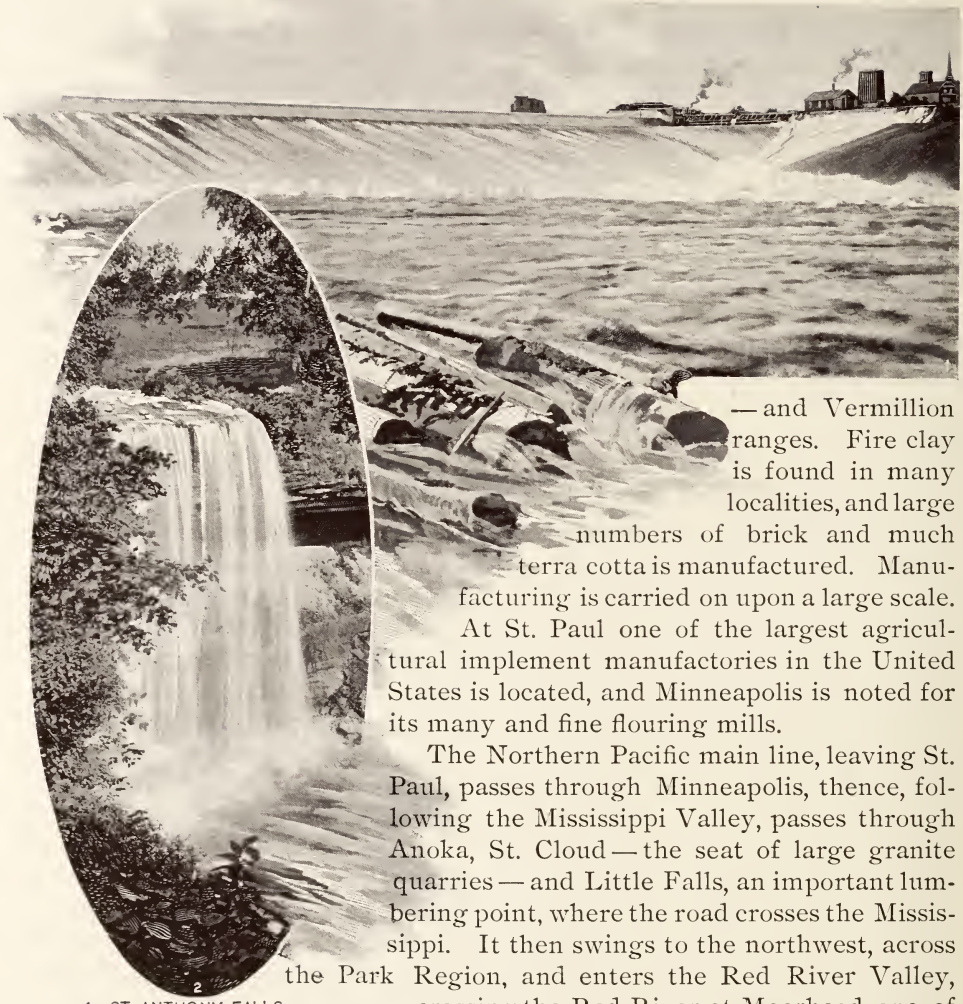
The easternmost point of the Northern Pacific is at Ashland, Wis., on Chequamagon — She-quahn'-me-gon, originally and correctly Shah'-gah-wah'-me-kong — Bay. The road skirts the Lake Superior shore for a good part of the distance between Duluth and Ashland, cutting a fine timber region. There are also splendid trouting streams found there, the Brule — Bróo-lay'— being noted as an unusually fine one.

Superior and Ashland are two prominent cities of Wisconsin, on the Northern Pacific. The former includes several varieties of the name — West, South, etc., Superior. It has large grain elevators, flour mills, and enormous coal docks; is a well-built, street-paved city, prosperous, and bound to be a large place. Ashland is a shipping point for the ores mined in the Gogebic — Go-geé-bic — iron ore region. Its harbor facilities are good as are also those of Superior.

MINNESOTA.

Minnesota assumed a territorial relation to the Government in 1849, and graduated into statehood in 1858. Its area is 84,287 square miles, or 53,943,379 acres. Its surface is very diversified, and it is as well a State of diversified industries. Agriculture in its various forms of grain raising, stock raising, dairying, etc., is of course of primal importance. Scarcely less is the lumber and shingle industry; and the great flouring mills once largely confined to Minneapolis, but now scattered well over the State, are a source of great wealth. Historically it is full of interest. Midway between St. Paul and Minneapolis are the falls of Minnehaha, a beautiful though not specially large cascade, that furnished Longfellow the theme for one of the most beautiful incidents of his poem, "The Song of Hiawatha." Hard by is Fort Snelling, at the junction of the Minnesota and Mississippi rivers. The corner-stone of the fort was laid in 1820, and it has ever since borne an important part in the military history of the Northwest. Fort Snelling is the Fort Sibley of Captain King's military novel, "From the Ranks." At Minneapolis are the St. Anthony Falls, so named by Father Hennepin, a Franciscan friar or monk, who traveled through the region in 1680. He named the falls after his patron saint, Anthony of Padua. In Lake Itasca, in the northern part of the State, the Mississippi River, the "Father of Waters," has its source. For about 600 miles it flows entirely within the limits of the State. Its total length, from its ultimate source in the Itasca Basin to the Gulf of Mexico, is 2,553 miles.

Several varieties of good building stone, granites, sandstones, and limestones are scattered over the State. In the northeastern section of the State are large deposits of iron, found in the Mesabi — Me-sah'-be



1. ST. ANTHONY FALLS.
2. MINNEHAHA FALLS.

— and Vermillion ranges. Fire clay is found in many localities, and large numbers of brick and much terra cotta is manufactured. Manufacturing is carried on upon a large scale. At St. Paul one of the largest agricultural implement manufactories in the United States is located, and Minneapolis is noted for its many and fine flouring mills.

The Northern Pacific main line, leaving St. Paul, passes through Minneapolis, thence, following the Mississippi Valley, passes through Anoka, St. Cloud — the seat of large granite quarries — and Little Falls, an important lumbering point, where the road crosses the Mississippi. It then swings to the northwest, across the Park Region, and enters the Red River Valley, crossing the Red River at Moorhead, one of the large towns of the valley.

At Staples the line from Duluth joins the other, and beyond Staples, at Winnipeg Junction, the Manitoba branch for Winnipeg diverges. It will thus be seen that the Northern Pacific touches the three important cities of Minnesota—St. Paul the capital, Minneapolis the largest city, and Duluth the third city in population. These are modern cities in every sense of the word, with asphalted streets, large buildings, residences of fine architecture, good sanitary and water systems, and beautiful parks. St. Paul and Minneapolis are located upon both banks of the Mississippi, and Duluth is an enthroned queen upon the ancient heights that overlook

Superior's spacious bosom, where its people can watch "The Ships that Pass in the Night" as they come and go freighted with precious cargoes.

Aitkin — Á-kin — and Brainerd are important lumber towns between Duluth and Staples. At Brainerd are large shops of the Northern Pacific, and a railway track — formerly part of the main line — connects Brainerd and Little Falls. St. Paul, at the head of Mississippi River navigation, has an altitude of 710 feet above sea level.

Minnesota is drained by the St. Croix — a portion of its eastern boundary line — Mississippi, Minnesota, Red, and St. Louis rivers. These rivers run south or southeasterly, with the exception of the Red. This river has its source near the source of the Mississippi, at first flows south and then whirls about and runs directly north into Lake Winnipeg, Manitoba. Along the northeastern boundary are a series of lakes and rivers, including Rainy Lake, Rainy Lake River, and Lake of the Woods, that drain a large portion of that part of the State. *The most northern point of the United States*, excepting only Alaska, is the isolated part of Minnesota on the west shore of Lake of the Woods. The land surrounding it is entirely in Manitoba, and its connection with the United States and the State of which it forms a part is entirely by the waters of the lake.

NORTH DAKOTA.

In 1861, the Territory of Dakota took its place among the sisterhood of States and on the United States maps. This Territory, which included both North and South Dakota, in 1889 was divided and became two States. The area of North Dakota is 70,795 square miles, or about 45,308,800 acres. North Dakota, with other portions of the West, was formerly a vast buffalo range. Now, instead of buffalo, cattle, horses, and sheep are raised.

The State has a good drainage system. Beginning at the east, there is the Red River, flowing north; the Sheyenne, James, and Missouri rivers, which flow south, and the Little Missouri and Mouse rivers that also run north. Of these the Red and Missouri rivers are much the largest. The surface of the land outside of the Red River Valley is more or less rolling. The valleys of the Red, James, and Missouri form great troughs running north and south, and that of the Red River is unusually level for so long and wide a valley.

North Dakota is essentially an agricultural State, but in the western part of the State there are large deposits of lignite coal.

The main line of the Northern Pacific enters North Dakota at Fargo, and runs entirely across the State.

Fargo is one of the most enterprising cities of the West. It is thoroughly alive to its own interests and abreast of the times in municipal

improvement, and is the important city of the Lower Red River Valley. It ranks third among farm machinery distributing points in the United States.

West of Fargo are Valley City and Jamestown, the one in the valley of the Sheyenne, the other in the James River Valley. Not so large as Fargo, they are thriving places, and as the surrounding country is settled they become larger.

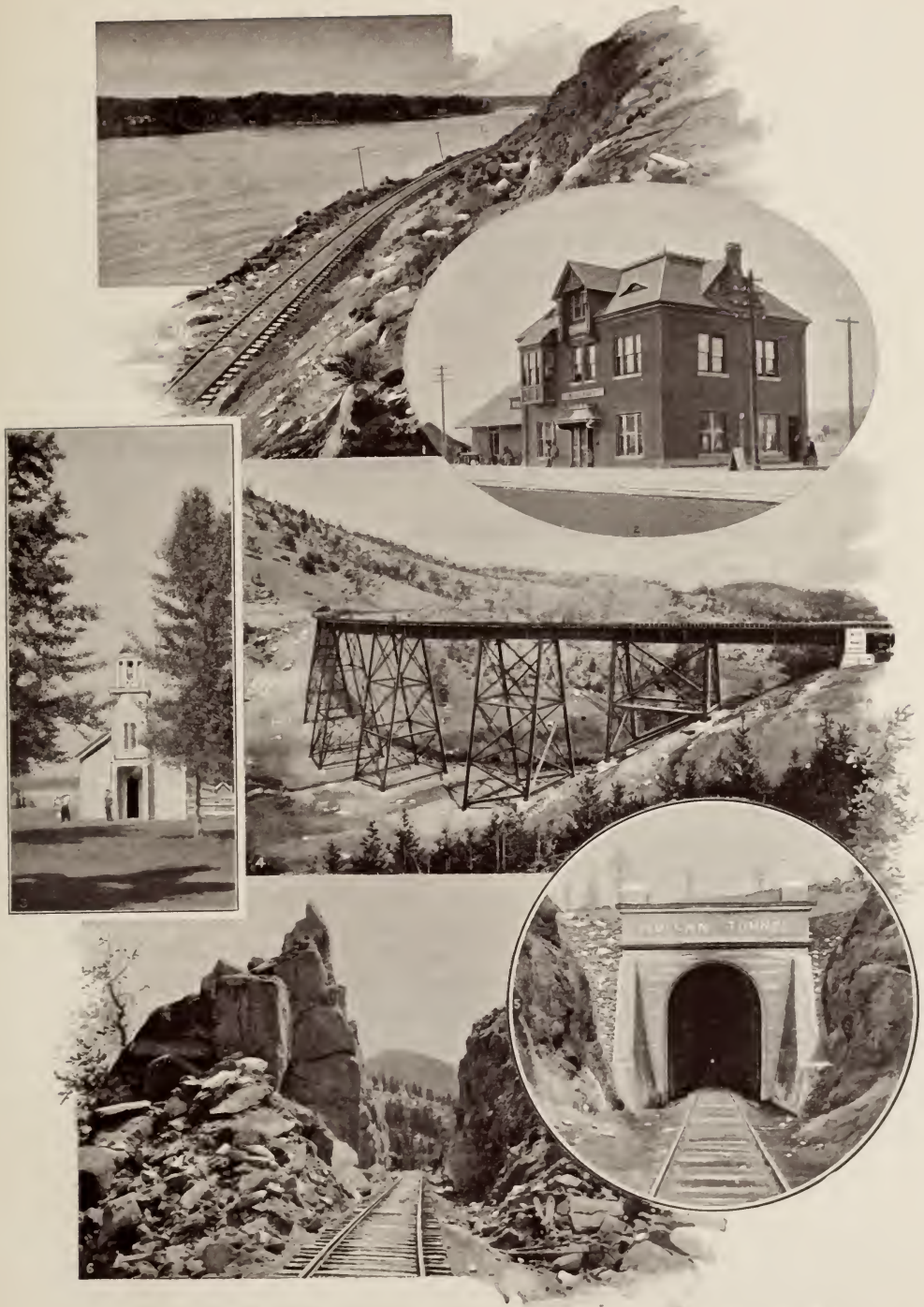
Bismarck, on the eastern bank of the Missouri, is the State capital. At this point the railroad crosses the Missouri River on an iron and steel bridge. On the west bank of the river is Mandan, named after the Mandan Indians, who formerly roamed this region. In this neighborhood Lewis and Clark, the explorers, wintered in 1804–5. Beyond Mandan is Dickinson, in the heart of a sheep and cattle country. Just before reaching Medora, the traveler can see, on the left side of the train, the Watch Dog Rock, one of the odd figures formed in rock in this locality.

The Manitoba branch line traverses the Red River Valley to Winnipeg. Until Grand Forks is reached, it lies in Minnesota, passing through Fertile and Crookston, two thriving places. Just east of the line, and reached from either of these places, is the recently opened Red Lake Reservation. Crookston is the seat of the United States Land Office, and a branch line extends from Crookston to Red Lake Falls, near the boundary of the reservation. After entering North Dakota, the road reaches northward on the western bank of Red River, passing through Grafton and Drayton — growing points of importance in the valley.

Grand Forks, like Fargo, is another example of push and energy among northwestern towns. It is a modern place, with good buildings, churches, and schools, and the seat of the North Dakota University. One of the finest woolen mills in the West is located here, and it ships its products to far-away Japan among other outside points.

The heretofore accepted meaning of the word Dakota — recently questioned, however — is an interesting one. It comes from the Dakota tribe of Indians, commonly though incorrectly — except so far as custom sanctions it — called the Sioux. The word has its counterpart in our own motto, "*E pluribus unum*," and refers to a league established two centuries ago between tribes ranging over a vast extent of territory, from the great Lake Superior westward. The old French *voyageurs* called the Dakotas "Gens du Lac" (People of the Lakes), because of the number of lakes in their country.

In 1895, among other agricultural products, North Dakota produced *approximately*, 2,800,000 bushels of potatoes, 1,000,000 bushels of corn, 56,000,000 bushels of wheat, 20,000,000 bushels of oats, and 3,600,000 bushels of flax.



1. YELLOWSTONE RIVER — MEYERS BLUFFS. 2. RAILWAY STATION, LIVINGSTON, MONT.
3. OLD ST. MARYS MISSION CHURCH, STEVENSVILLE, MONT. 4. AUSTIN VIADUCT ON HELENA HILL.
5. PORTAL OF MULLAN TUNNEL — ROCKY MOUNTAINS, WEST OF HELENA. 6. ALONG BUTTE AIR LINE.

MANITOBA.

The Northern Pacific line that traverses the Red River Valley leaves United States territory at Pembina—Pem'-be-nah. This is one of the oldest settlements in the Northwest, and, until recently, was a United States military post. Winnipeg, the capital of Manitoba — formerly Man-i-to-bah', now usually pronounced Man-i-tó-bah — is a city of much interest to a citizen from the States. It occupies the site of old Fort Garry, a former Hudson Bay Company post, at the junction of the Red and Assiniboine—As-sin'-i-boin—rivers. A portion of the fort wall still stands and the Hudson Bay Company still does business in a large, modern structure. The streets of Winnipeg are broad and well built up, traversed by electric cars, and lighted at night by electric lights. Among many fine buildings is the "Manitoba," a large brick structure owned by the Northern Pacific, and the finest hotel in Winnipeg.

MONTANA.

After leaving Medora and the Little Missouri River the railroad winds up to the divide through a narrow creek valley. Prairie dog villages, with their cute, grave, stub-tailed denizens, afford mirth to the passengers. Away to the left, Sentinel Butte is a conspicuous feature of the landscape.

We are now in a State, of new and striking characteristics, although the fact is not at once made apparent. The immediate locality is still a cattle or, in the vernacular, "cow" country. The little stations, such as Wibaux, Roubaix, Allard, etc., are busy cattle-shipping points at times. In 1896, more than 294,000 head of cattle were shipped from Montana, and 60,000 were used within its borders. The value of the entire number was over $8,500,000. When the divide is reached, the rails follow Glendive Creek to its debouchment in the greater Yellowstone River. Now the change in scenic character shows itself. Indeed the weird, startling pinnacles and cliffs of the Bad Lands about Glendive have betokened a change. Montana became a Territory in 1864, a State in 1889. Its area is 146,080 square miles, or 93,491,200 acres — one of the largest States in the Union. The name itself is significant of its physical character. Mr. W. E. Sanders, the Librarian of the Montana Historical Society, in Brower's "The Missouri River," discusses the derivation and meaning of the word from which I give an excerpt. The Latin words *montána* and *montánis* are under consideration.

Here, however, the word is pronounced with the long sound of the "*a*," as follows: "*Mon-tay-na*," or "*Mon-tay-nis*," while the correct and proper pronunciation of the word gives the Spanish sound of the "*a*"; not the long, as in "fate," nor yet the flat, as in "bat," but more nearly that of "*a*" in "far," as "*Mon-táh-nah*," not too broadly given. So you will see that the word could not have been taken directly from the Latin. It is evident,

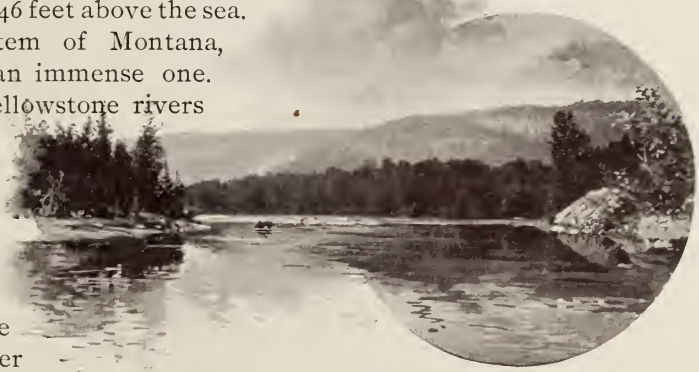
as it is a fact, that it came directly from some other language founded upon the older tongue, and this language is that of Spain. The name comes directly from the feminine form of the adjective "*montáno*," meaning mountainous; from the noun "*montána*," a mountain or mount, and pronounced "*mon-tán-nyah.*" The feminine form of the adjective "*montáno*" is "*montána*," which is pronounced "*mon-táh-nah*," the signification of which is a mountainous country. * * * * * * *

As to the signification of the word, no other one would so well describe the topographical characteristics of the State, for, with the ranges and spurs and isolated groups of mountains, the State of Montana is indeed a mountainous country. First and foremost, of course, the main range of the "Rockies"—the "backbone of the continent"—reaches from north to south across the State, a magnificent mountain wall. Radiating from it in many directions run spurs and lesser ranges, as the Cœur d'Aléne, Bitter Root, Kootenai, Cabinet, Gallatin, Madison, Snowies, Highland, Basin, and many more or less isolated groups and ranges, as the Tobacco, Snow Crest, Crazy, Ruby, Milk River, Bridger, Pryor, Bull, Little Belt, Big Belt, Bear Paw, Big Snow, Sweet Grass, Little Rockies, Highwood, Wolf or Cheetish, Big Horn, and Rosebud, some of which reach eastward nearly to the eastern boundary of the State.

The main range of the Rockies enters the State at the northwest corner and extends southeasterly to the vicinity of Helena, where it swings to the south. The range is formed of many parallel ranges, which, west of Helena, trend northwest and southeast.

After the Northern Pacific reaches the Yellowstone River, it takes advantage of this natural grade and follows it for 341 miles to Livingston. Between Livingston and Bozeman it finds the first and highest ridge of the Rockies, which it crosses at an altitude of 5,565 feet above sea level, via the Bozeman Tunnel. West of Helena the range is again crossed, through the Mullan Tunnel at 5,548 feet elevation, and yet a third time via the Coriacan — Kohr-i-ak'-an — Defile west of Missoula, which pass is 3,946 feet above the sea.

The drainage system of Montana, taken as a whole, is an immense one. The Missouri and Yellowstone rivers east of the mountains, the Clark Fork of the Columbia and the Kootenai rivers in the northwest, are the greater individual systems. Besides these there are many other streams, of which the Powder, Tongue, Rosebud, Big Horn, Bitter Root, Missoula, Musselshell, Milk, Marias, etc., rivers are examples, which drain large areas and are almost as important in this respect as the larger streams. The Missouri River



ON THE BITTER ROOT NEAR MISSOULA, MONT.

has its rise in Montana, the ultimate source being found in the southeast corner just west of Yellowstone Park, and being the utmost source of the Jefferson Fork of the Missouri.

The mountains are full of the precious metals, and contain extensive beds of good merchantable and coking bituminous coal.

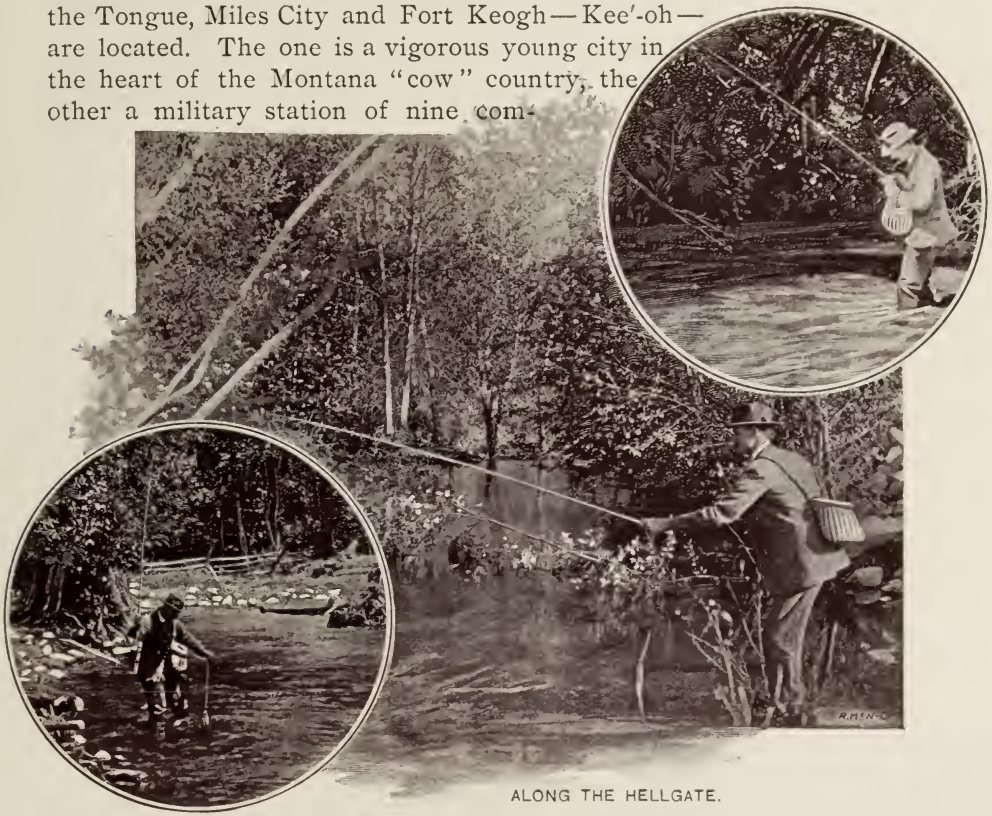
Agriculturally the State stands high. Its valleys are fertile, and under irrigation produce enormous crops of grain and vegetables. The Yellowstone, Tongue, Gallatin, and Bitter Root valleys are particularly noted in this respect. Horticulturally it is also coming to the front. This is especially so with those valleys west of the main Rocky range, which are more within the influence of the warm Japan Current, locally known as "Chinook" winds. Small fruits grow luxuriantly in all the valleys. Within a few years the west side of the Bitter Root Valley will be almost one continuous orchard. The Gallatin Valley raises unusually fine barley. From 75,000 to 100,000 bushels of barley are shipped annually from this valley to European points, and 250,000 bushels are made into malt, in the valley itself. The many mining camps throughout the State furnish markets of the best and steadiest sort. In 1895, there were planted to wheat more than 40,000 acres; barley, about 17,000 acres; corn, 1,300 acres; oats, 80,000 acres; potatoes, more than 5,000 acres; hay, 225,000 acres, and to alfalfa, 10,000 acres. There were nearly 300,000 standard apple trees, of which between 35,000 and 40,000 were in bearing.

From a scenic standpoint, Montana is resplendent. East of the main Rockies are the great rolling plains, varied in profile by the spurs and offshoots from the mountains that stretch eastward. The numberless water courses, a plexus of fructifying agencies, with their grass-bottomed and tree-fringed valleys, cut the plains in all directions even as the life-giving arteries of blood penetrate the human system.

The mountains themselves are nature's own. They are "full of days" and of glory. They are of all varieties. Lofty, gigantic ranges, clothed with umbrageous forests, terminate in bald peaks whose crowns have been scalped by nature, with the relentlessness of an Indian. Naked and unblushing slopes browned by the suns of centuries, are contrasted by their heights of austere, black, timber garments, in whose avenues and savannas the elk, deer, bear, and cougar reign, and above which the battlemented crags and snow-touched crests rise to meet the sun and storm. In their bosoms are cold mountain lakes and colder glaciers. Dim, narrow trails used indiscriminately by hunter, prospector, elk, or mountain goat are their highways of communication, and the axe blazings on trees are their telegraph lines.

Montána — mountainous — well and truly named, and its people love the name as they love the land.

The ride through the historic Yellowstone Valley, the old Elk of the Sioux, and the theater of so much savage warfare, is full of interest. Mile after mile the train rumbles alongside the swirling stream, now shooting across a wide amplitude of valley, now thundering at the base of cliffs. The Powder, Tongue, Rosebud, and Big Horn rivers are each crossed where they debouch into the Yellowstone. At the mouth of the Tongue, Miles City and Fort Keogh — Kee'-oh — are located. The one is a vigorous young city in the heart of the Montana "cow" country, the other a military station of nine com-



ALONG THE HELLGATE.

panies. Near Miles City the evidences of irrigation are seen. A large canal is brought down from the Tongue River. The broad fields of grain, and the beautiful green of those checker-squares of alfalfa fields are a sight to gladden the eyes. A little farther and Billings is reached. Here is another depot for cattle, and especially for wool and sheep shipments. The value of sheep and wool produced in 1896 in Montana was $2,500,000. Here, too, are more irrigation canals. Presto! what a change! A few short years ago, the grazing ground of buffalo, the hunting and fighting ground of the Indian. Now, the fattening ground of cattle and sheep, the land of fruits, grain, and alfalfa, with the wings of peace spread over it. GREAT IS IRRIGATION!

Fort Custer and Custer's fatal battle ground lie only forty miles to the south. They can be reached from Custer Station by stage, or from Billings by trains of the Burlington system.

At Livingston, the tourist bound for Yellowstone Park leaves the through train. The park lies fifty-one miles southward, and is reached by a branch line.

Beyond the first crossing of the mountains is Bozeman, a most prosperous little city, in an equally prosperous valley — the Gallatin.

Helena is the capital of Montana and the site of Fort Harrison — visible from the car windows after the train leaves Helena — the newest and best of recently built military posts. It is a large, well-built, though rather rambling, city, and the center of a wealthy mining region. From the summit of the mountains west of Helena, at the Mullan Tunnel, there is a down grade clear to Missoula, where again an up grade is found that extends to the Coriacan Pass, in the last ridge of the Rockies. Down this grade swiftly and safely the train sweeps. Like a kaleidoscope, the scene keeps shifting. A glance at some bold rock poised high in air, and it has vanished. The Blackfoot or Hellgate River, whichever it may be, is racing us through the broad, flowery meadows. The Hellgate Cañon is one of the grandest pathways through the mountains that a railroad engineer ever meandered.

At Logan, on the eastern side of the mountains and west of Bozeman, a line known as the Butte Air Line diverges. This line, via Butte, the great mining city, and the Montana Union Railway, traverses the valley of the Jefferson River, crosses the range into Butte, and then swings north through the beautiful Deer Lodge Valley, and at Garrison, about half-way between Butte or Helena and Missoula, reconnects with the Helena or main line. The scenery via this route, while decidedly different, will strike many as equal to that seen via Helena. In both cases the ride down Hellgate Cañon is an experience of the traveler.

FORT SHERMAN AND CŒUR D'ALÉNE LAKE, IDAHO.

Missoula is a "right smart of a town," as some of my old-time Southern friends would say. That reminds me that many from the land of the Southron have set up their tents within its borders. A finer sight for a town,

large or small, the sun never shone on. A great big flat at the angle of two rivers, the Bitter Root and Hellgate, which from the junction point becomes known as the Missoula, with glorious mountains round about, make it an ideal place on which to build a city.

The Bitter Root Valley which extends seventy-five miles southward and the Missoula Valley to the westward are two well settled fertile valleys.

The DeSmet or Cœur d'Aléne branch line leaves the main line at DeSmet, follows the Missoula River northwestward to its junction with the St. Regis de Borgia, and then winds up the narrow valley of the latter to the summit of the Cœur d'Aléne Range and over to Wallace, in Idaho.

After the Northern Pacific crosses the Mission Range through the Coriacan Defile, it stretches away to the northwest at last clear of the

SHORE OF LAKE PEND D'OREILLE AT HOPE.

Rockies. The train whirls swiftly across the Flathead Indian Reservation and then follows the Clark Fork, another winding and beautiful stream in the mountains, to Hope, Idaho, on the northern shore of Lake Pend d'Oreille.

IDAHO.

In 1863 Idaho was formed into a Territory. After twenty-seven years of probation, or in 1890, after considerable tribulation, it was elevated to statehood. Its area is 84,800 square miles, or about 54,272,000 acres. It is an odd-shaped State. This is owing to the fact that the eastern boundary is largely the summit line of the Bitter Root Mountains. Like Montana it is a mountainous country, but less so than its neighbor.

When the Territory of Idaho was established an effort was made to

1 HEADERS IN MOTION NEAR MOSCOW, IDAHO. 2. WHEAT PILED AT RAILROAD TRACK, PALOUSE COUNTRY.
3 GRAIN FIELD NEAR MOSCOW, IDAHO. 4 A WASHINGTON PRUNE TREE.

give to it the name Montana, but Congress refused its assent. The following year the effort succeeded, when Montana became a Territory.

While the country is rough, there are many fine valleys and much arable land in the bottoms and on the plateaus.

The drainage of the State includes the Kootenai, Clark Fork, Clearwater, Salmon, and Snake rivers sequentially from north to south.

The soil of the valleys and plateaus is unusually rich, being a decomposed volcanic ash. In most portions of the State irrigation is necessary to successful crop growing. In the extended area along the Idaho-Washington boundary line, opposite the Columbia River where the Snake empties into it, the moisture or mist that floats in from the ocean, or is caused by the warm winds from the sea, supplies all the precipitation needed. In this region — in both Washington and Idaho — very large crops are raised. It has always been noted for its crops of grain, wheat especially, and of late years it has developed into one of the best fruit regions in the West. In a general way it is known as the Palouse — Paa-loosé — country, and is reached by a branch line of the Northern Pacific from Spokane, Washington. This section is very rolling, possesses a mild equable climate, and is well settled. Recently a large portion — 500,000 acres — of the Nez Percé — Nay Pair-say′ — Indian Reservation has been thrown open to settlement. This provided 3,000 additional homesteads for settlers. The general elevation is about 2,000 feet above the sea.

Idaho has, in the past, been rich in mineral wealth. Some of the best placers found in the West were in the Salmon River country.

The Northern Pacific main line runs across the narrow pan-handle of Northern Idaho. The branch extending into the Cœur d'Aléne — Ker′-dah-lané — range, from Missoula and De Smet in Montana, extends from Wallace to Mission on the Cœur d'Aléne River. There it connects with Northern Pacific steamers on Cœur d'Aléne river and lake that run to Cœur d'Aléne city on the north shore of the lake. From this point the railroad is continued to Spokane, via Hauser Junction. Another branch line runs south from Spokane, Washington, following in a general way the boundary line between the two States, to Moscow, Genessee, Vollmer, Kendrick, Juliaetta, and Uniontown. From Uniontown a stage line extends to Lewiston, the principal town in that section, at the junction of the Clearwater and Snake rivers.

Boise — Boy′-say — the capital, is in the southwestern corner of the State. Lake Pend d'Oreille — Pahn′-dō-ray′ — in Northern Idaho, skirted by the Northern Pacific, is one of the most beautiful lakes in the United States.

WASHINGTON.

The congressional bill which called for the partition of the old Terri-

tory of Oregon, designated that part of it lying north of the Columbia River to be called Columbia. Such a name was eminently appropriate. But with the strange, fatuous notions that at times move men, even though they be august congressmen, a Kentucky member of Congress moved the substitution of the word Washington for Columbia, and Wash-

SPOKANE, WASH. SPOKANE FALLS, SPOKANE.

ington the new Territory became. This was in 1853. The area of the new Territory was 69,180 square miles, about 44,275,200 acres.

In 1889 Congress gave the Territory of Washington a commission as the State of Washington.

The first settler on *Puget Sound*, like the congressman who gave name to the Territory, was a Kentuckian, who settled at Budd's Inlet in 1845.

The eastern part of the State is largely a timberless, rolling plain, wonderfully rich in its volcanic ash soil. The northern and western portions are mountainous, with beautiful and fertile valleys, and vast areas of the finest of timber — spruces, firs, pines, cedars, etc. One who has not seen these marvelous forests, with their semi-tropic foliage, can not form an adequate conception of them from description alone. The mineral wealth of Washington is great. The country north of Spokane, around the Okanogan — O-ka-nah'-gan — River and Lake Chelan — She-lan' — and in various other portions of the Cascades, produces gold and silver. Large deposits of coal are found in the Puget Sound country, and iron and copper are thought to exist in paying quantities at various points. The fruits of Washington, whether of Eastern or Western Washington, are of the finest quality. East of the mountains irrigation must be more or less employed in all agricultural or horticultural pursuits, save in the Walla Walla region. West of the Cascades irrigation is unnecessary. East of the mountains, especially in the celebrated Yakima — Yak'-i-mah — Valley, fortunes have been invested in irrigation enterprises.

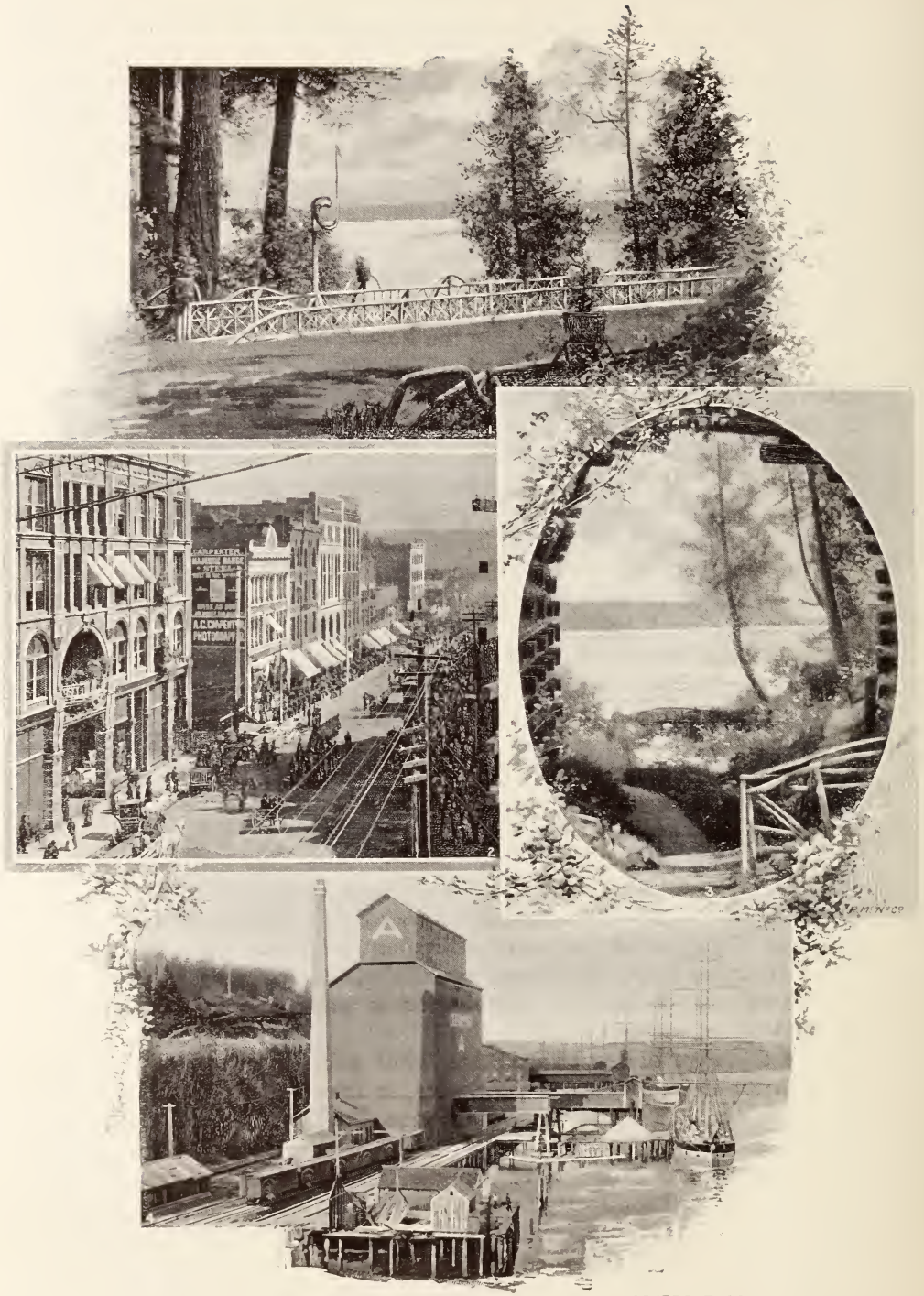
The fisheries of Washington are very valuable. They comprise the salmon — easily the most important branch — the sturgeon, shad, smelt, oyster, and clam fisheries. These fisheries are found in the Columbia River, Willapa and Grays harbors, and Puget Sound. The total value of the output for 1896, was $3,200,000.

The exports from Washington cities are large, and yearly increasing. These consist of lumber, shingles, wheat, coal, etc. Wheat and lumber are exported to Europe, Japan, etc., as well as to parts of our own country. Most of the coal used on the Pacific Coast is obtained from the Puget Sound country.

There were exported in 1896: Wheat, more than 3,200,000 bushels exceeding $2,200,000 in value; flour, more than 500,000 barrels, exceeding $1,500,000 in value; timber, more than 170,000,000 feet, exceeding $1,500,000 in value. Total timber and shingle shipments of all sorts were $7,000,000. The coal output was worth $3,500,000, and that of dairy products, $1,500,000.

The climate of Eastern Washington is warm and dry, that of the western half warm and moist.

The drainage of the entire State flows either into the Pacific Ocean, through the Columbia River principally, or into the Sound. Besides the Columbia, the larger rivers are the Snake, Spokane, Yakima, Okanogan, and Clark Fork, or Pend d'Oreille, all of which are affluents of the Columbia. West of the Cascades, and in the Olympic Range, are numberless short rivers running directly to the sea or Sound. Some of these carry a good volume of water. Such are the Cowlitz, Skagit,— Skaá-jit — Elwah, etc.



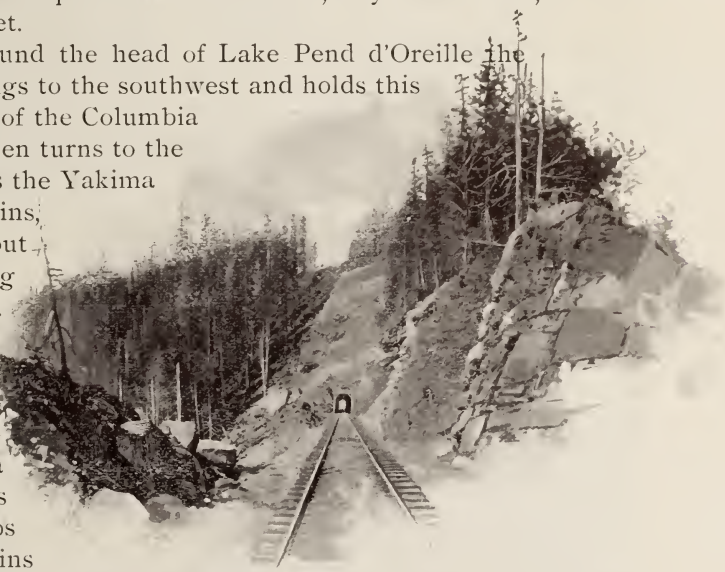
1. BRIDGE. POINT DEFIANCE PARK, TACOMA, WASH.
2. C STREET, TACOMA.
3. THE SOUND, FROM POINT DEFIANCE PARK, TACOMA, WASH.
4. ELEVATOR A, TACOMA, WASH.

The relative and actual elevations of different parts of the State are shown in the following figures :

Where the Northern Pacific crosses the Columbia River, at Pasco and Kennewick, it is 330 feet above sea level; at North Yakima, 91 miles northwest, the altitude has increased to 990 feet; at Ellensburg, 37 miles farther along and at the base of the Cascades, it has become 1,510 feet, and at the pass through the range, the Stampede Tunnel, the track is 2,885 feet above sea level. Spokane lies 1,910 feet above the Pacific, and Tacoma and Seattle are about 30 feet above the water.

The tremendous and varied heights to which the mountains attain, become evident in the naming of a few figures. Mount Baker, in the extreme Northern Cascades, is 10,719 feet high. On the opposite side of the Sound Mount Olympus of the Olympic Range faces it, but with only 8,150 feet of elevation. Mount Adams, in the Southern Cascades, is 12,250 feet high, while the white poll of Mount Rainier, fifty miles north, reaches heavenward 14,532 feet.

After working around the head of Lake Pend d'Oreille the Northern Pacific swings to the southwest and holds this course to the crossing of the Columbia River at Pasco. It then turns to the northwest and follows the Yakima River to the mountains, where it squirms about here and there working its way to the Sound. From Tacoma its course is southward to Portland.



FIRST TUNNEL WEST OF STAMPEDE TUNNEL, CASCADE RANGE.

Between the Idaho line and the Columbia River, the road winds across what old maps called the "Great Plains of the Spokane and Columbia." It is at first a wide, gravelly plain, becoming more sandy as the river is neared. The larger part of it has seen volcanic disturbance, and volcanic ridges and buttes — būtes not buts — are seen in all directions. In many sections the soil is decomposed volcanic products and is exceedingly rich. All that is necessary is moisture, either by natural precipitation or artificial irrigation, to enable it to produce enormous crops. North and west of Spokane, in the beautiful Colville Valley and Big Bend country, irrigation is more or less necessary.

1. SHIPPING SCENE, SEATTLE.
2. PLYMOUTH CONGREGATIONAL CHURCH, SEATTLE.
3. KING COUNTY COURT HOUSE.
4. MADRONA PARK, LAKE WASHINGTON, SEATTLE.

In all the region east of the mountains the soil seems to be well adapted to either grain or fruits.

Between the Columbia and the mountains lies the Yakima Valley. Under this name are included many lateral valleys that are subsidiary to the main valley. The Yakima is a wonderful object lesson. The desert that was — the garden that is. Such may be written even now of many parts of it — such will be written of all of it ultimately. Irrigation is the one word that explains it. Fruits, vegetables, grain, and forage crops — alfalfa and clover — are raised indiscriminately and with profit. Washington is a natural garden for hops, and the Yakima Valley is especially adapted to their growth. There are in this valley nearly 400 miles of completed canals. Out of 140,000 acres thus reclaimed, 70,000 are under cultivation. The upper valley around Ellensburg, known as the Kittitas—Kit'ty-tăs—Valley, is noted for its hay and small fruits. There are, in this locality, about 30,000 acres of land under irrigation. The dairy industry thrives here.

Washington has more than 800 miles of irrigation canals and over 200,000 acres under irrigation. It is estimated that there are 65;000 acres devoted to horticulture; that 10,000 acres were set out to fruits in 1896; that there were 5,000,000 trees bearing fruit, and 17,000,000 pounds of prunes and plums raised the same year. The fruit crop for 1896 was worth $2,000,000.

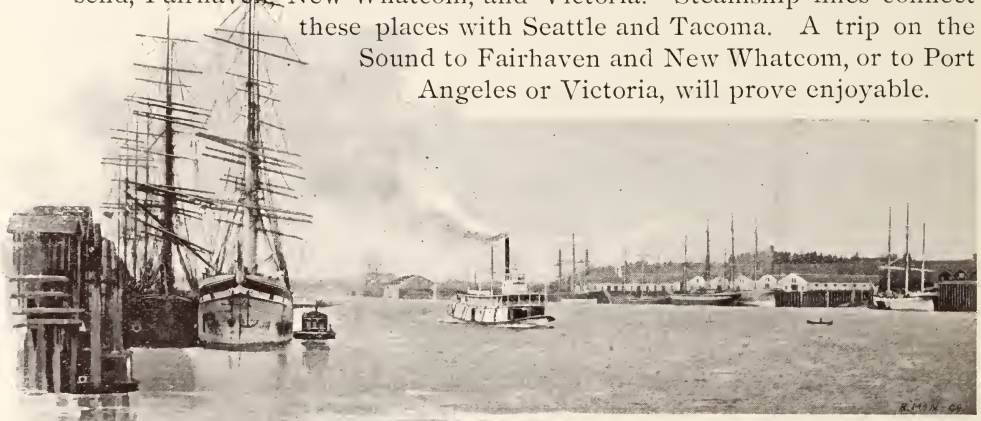
Of the cities and towns of Washington, Spokane is the metropolis of the eastern half. From it railways radiate in every direction to mining and agricultural communities. It is a splendid city, and now, since the opening of the rich gold fields of Kootenai and the Boundary Creek country to the north, is again running over with prosperity. Cheney, Oakesdale, Garfield, Palouse City, Colfax, Pullman, Pomeroy, Asotin, Dayton, Walla Walla, Pasco, Ritzville, Sprague, Davenport, etc., are towns of various degrees of growth and importance in the region east of the Columbia River. In the Yakima Valley, Kennewick, Kiona, Prosser, Mabton, Toppenish, North Yakima, and Ellensburg are points where the great irrigation enterprises are best seen. Of these places North Yakima and Ellensburg are towns of several thousand population each. At any of these points every facility will be extended to the stranger to become acquainted with the peculiar agricultural problems involved.

The Yakima Valley is fast acquiring a reputation for salubrity of climate and relief afforded in pulmonary complaints. Its range of elevation — 300 to 1,500 feet above sea level — renders it peculiarly adapted to all classes of individuals.

The cities on the Sound are well known. Tacoma, Seattle, and Olympia, the capital, are large cities, with all the culture, refinements, modern

improvements, and advantages of Eastern cities. The churches, school buildings, hotels, and business blocks found in the cities of the Pacific Northwest show that in the essentials of religion, morality, art, and education, these people are as careful to provide for them as are their fellow beings of the Atlantic Slope, due regard being had for age and environment. People are as well educated, dress as well, have as fine equipages, if not as many, indulge in clubs and societies and all the other up-to-date et cetera of modern civilization, the same as their brethren and sisters of the effete East.

Located on the Sound are the smaller towns of Everett, Port Townsend, Fairhaven, New Whatcom, and Victoria. Steamship lines connect these places with Seattle and Tacoma. A trip on the Sound to Fairhaven and New Whatcom, or to Port Angeles or Victoria, will prove enjoyable.



HARBOR OF PORTLAND. GRAIN VESSELS LOADING FOR LIVERPOOL.

The steamer City of Kingston, which plies between Tacoma and Victoria, is an unusually pleasant boat. This trip gives one an opportunity to see the capital city of British Columbia.

OREGON.

In a historical way Oregon and Washington are most closely allied. This is especially so regarding the early history of the region.

As a Territory, Oregon took its position in 1849 — the first year of the great rush of gold hunters to California and the Pacific Coast. This relation was maintained until 1859, just ten years, when it was admitted to statehood.

In general characteristics, also, Washington and Oregon are much alike. The lofty Cascade Range with its snow-helmeted sentinels is common to both. If Washington has Rainier, Adams, and Baker, Oregon has its Hood, Jefferson, and Three Sisters. The great Columbia — the lower part of it — is the common drainage channel and boundary line of both.

The vast forests to the north utterly ignore conventional boundaries and sweep on southward in undiminished grandeur. The agricultural products of the one are also those of the other.

The area of the State is 96,030 square miles, or about 61,459,200 acres. The Cascades here also divide the country into Eastern and Western Oregon. The climatic conditions in these regions are about the same as in the corresponding divisions of Washington.

The principal rivers, in addition to the Columbia already mentioned, are the Willamette—Wil-lam'-met,—Umpqua—Ump'-quah',—and Rogue rivers in Western Oregon, and the Des Chutes—Day-shoot',—John Day, Snake, and Owyhee—O-wy'-ee—rivers in Northern and Eastern Oregon. The river valleys as a rule are not only rich but beautiful, particularly west of the mountains. The Columbia and Willamette rivers together form a deep water-way up which ocean vessels make their way. The Willamette Valley is a prolific one, and the river traffic between Portland and the river towns up the latter valley and down the Columbia is a large one.

The principal cities are Astoria, Portland, Salem the capital, Albany, Eugene City, Roseburg, Pendleton, Baker City, etc. Astoria is, historically, the most interesting place on the North Pacific Coast. Portland is the largest and wealthiest of North Pacific Coast cities and one of the oldest. It is a beautiful city and the seat of a large ocean commerce. One of the grandest views of natural scenery in the world is seen from the Portland heights where Mount Hood and Mount St. Helens both are in view, their white, sharp cones rising like white thrones of the Almighty. Someway the visitor from the East feels as if he were in an Eastern city when in Portland. Many pleasant river trips can be made from Portland.

The Northern Pacific now has for sale in "The Great Northwest," approximately:

In Minnesota, upward of 1,250,000 acres, at from $2.50 to $8.00 per acre.

In North Dakota, upward of 6,800,000 acres, at from $1.00 to $5.00 per acre.

In Montana, upward of 17,450,000 acres, irrigation lands.

In Northern Idaho, upward of 1,750,000 acres, at from $3.00 to $8.00 per acre.

In Washington and Oregon, over 9,375,000 acres, at from $2.00 to $65.00 per acre.

Lands in Montana require irrigation. The high-priced lands under "Washington and Oregon" are also under irrigation, and the price carries with it and includes the water right.

NORTHERN PACIFIC TRANSCONTINENTAL EXPRESS.

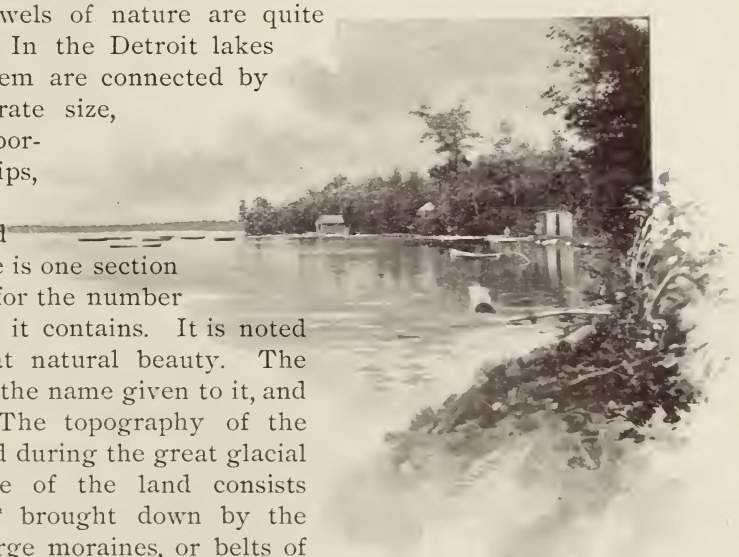
The Lake Park Region

"The fine scenery of lakes, and open groves of oak timber, of winding streams connecting them, and beautifully rolling country on all sides, renders this portion of Minnesota the garden spot of the Northwest."

—Captain—Afterward General—John Pope, 1850.

MINNESOTA is a land of lakes, paradoxical as it may appear. The Minnesota Geological Survey places the number in the State at about 10,000. The water area of the State is larger than that of any State or Territory in the United States, amounting to more than 5,600 square miles, exclusive of Lake Superior. Of these 10,000 lakes, the number that can really be called large will scarcely exceed ten or twelve.

The water area of the northwestern corner, a strip along the northeastern boundary, and the southeastern portion of the State, is comparatively limited. Over the remainder of the State, in a general way, these water jewels of nature are quite evenly distributed. In the Detroit lakes region, many of them are connected by a stream of moderate size, affording a fine opportunity for canoeing trips, but most of the lakes are isolated and disconnected. There is one section that is pre-eminent for the number of lakes and lakelets it contains. It is noted as well for its great natural beauty. The Lake Park Region is the name given to it, and it truly merits it. The topography of the State was determined during the great glacial epoch. The surface of the land consists largely of the *drift* brought down by the great ice sheet. Large moraines, or belts of



SERPENT LAKE, DEERWOOD, MINN.

FAIRHAVEN HOUSE.

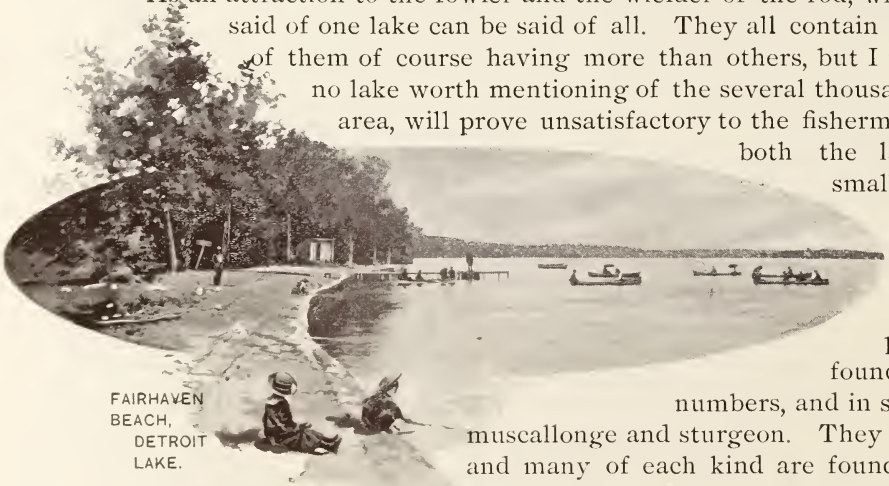
hills and knolls composed of drift, are scattered over the land principally in the central portion. It is from this morainic character of the country that the Lake Park Region derives its beauty. Rolling and hilly, with lakes filling the depressions, and areas of trees of greater or lesser extent, it is a region of great fertility, great variety, great beauty.

This lovely park land is penetrated by the Northern Pacific Railway in three directions. The main line of the road, from St. Paul and Minneapolis, runs via Little Falls. Leaving this place, it crosses the Mississippi River and swings to the northwest, winding through the heart of this picturesque country. From Perham, Detroit, and Lake Park, as points from which to radiate, the tourist or sportsman has an unlimited number of lakes from which to make his choice.

From Wadena a branch line extends to the southwest and west, passing through Clitheral, Battle Lake, and Fergus Falls.

Between Battle Lake and Fergus Falls on the south, and Perham, Detroit, and Lake Park on the north, the country is literally alive with lakes, so to speak. From every knoll and eminence they are visible by the score.

As an attraction to the fowler and the wielder of the rod, what can be said of one lake can be said of all. They all contain fish, some of them of course having more than others, but I think that no lake worth mentioning of the several thousand in this area, will prove unsatisfactory to the fisherman. Bass, both the large and small-mouthed varieties, pickerel, whitefish, pike, and perch, are found in large numbers, and in some cases muscallonge and sturgeon. They are gamy, and many of each kind are found of large size. In several of the lakes the State or Government has planted, in



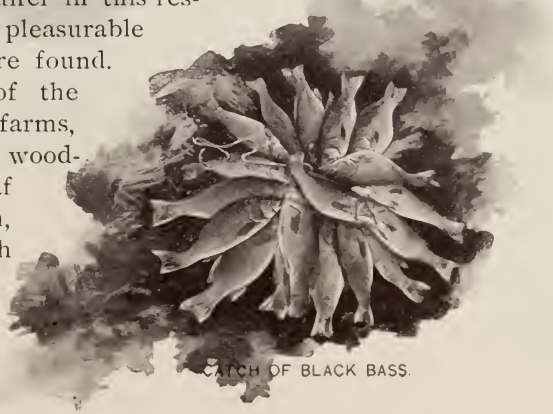
FAIRHAVEN BEACH, DETROIT LAKE.

recent years, thousands of trout, so that this variety will soon be added to the enticements of the angler. The Lake Park Region is noted as a great ducking ground. Prairie chickens, snipe, grouse, and other small game are abundant. As a spot where the tourist can while away a week, a month, or a summer, this locality is unsurpassed. Of a general elevation of 1,200 to 1,700 feet above sea level; with lakes and rivers, groves and undulating prairies, and, almost encircling it, the Leaf Hills, which in many places become miniature mountains, both health and pleasure are obtained by a sojourn here.

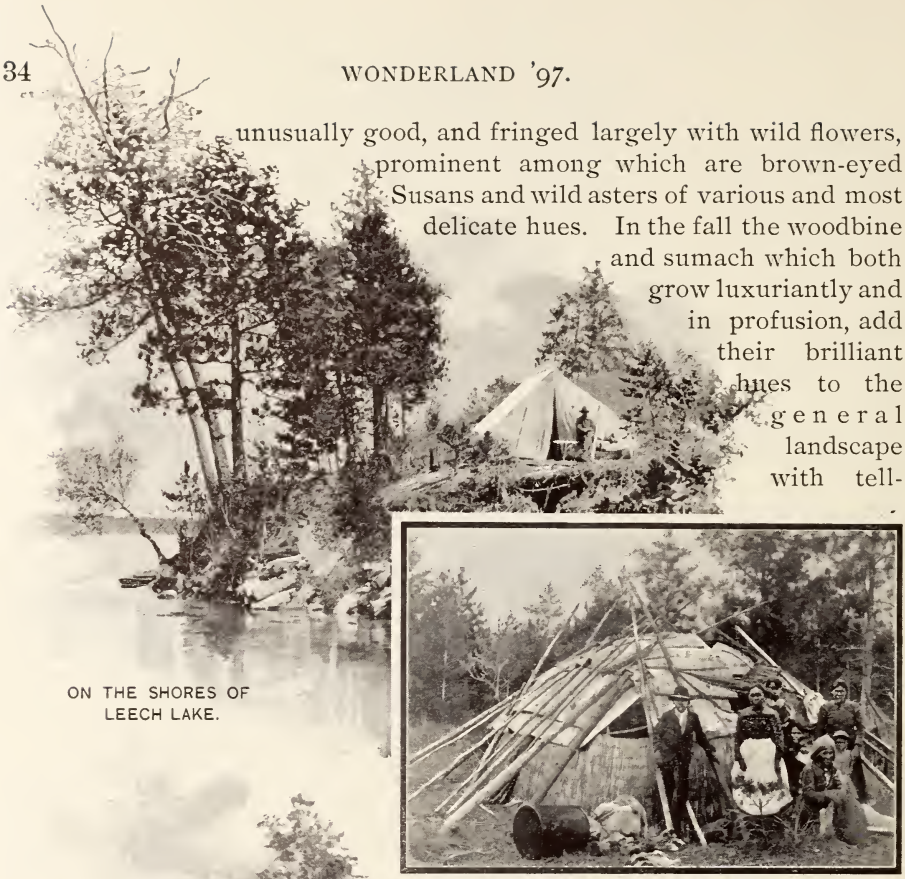
CLUB HOUSE COTTAGES, DETROIT LAKE.

One feature deserves special mention. In visiting a locality where lakes are as numerous as they are in the Lake Park country, one expects to stumble upon them in every depression, and to find all the pleasures possible to be obtained in so far as lakes themselves go. One thing he is not so sure of, and that is the character of the roads which traverse the region. If to a large degree impassable, dim, full of ruts and holes, the delights of rural driving, which are so effective by way of contrast and restfulness, are absent. Luckily the Park Region does not suffer in this respect. Some of the most pleasurable country drives imaginable are found. The undulating character of the region, with its many fine farms, comfortable houses, clumps of woodland, with the rugged Leaf Hills closing in the horizon, make of it, in connection with the shining, mirror-like bits of water surface, a glorious park indeed. The roads are

LAUNCH ON DETROIT LAKE.



CATCH OF BLACK BASS.



ON THE SHORES OF LEECH LAKE.

unusually good, and fringed largely with wild flowers, prominent among which are brown-eyed Susans and wild asters of various and most delicate hues. In the fall the woodbine and sumach which both grow luxuriantly and in profusion, add their brilliant hues to the general landscape with telling effect. Rocks, either in field or road, are almost unknown. The great field of ice which covered the country deposited the rocks and boulders in the morainic hills and left the greater part of the surface composed of what geologists call *till* — a mixture of sand, gravel, and clay. Eastward from Staples, on the line to Duluth and Superior, the Park Region, in a wide sense, extends as far as Deerwood a lovely spot convenient to Duluth, and Aitkin. The westward limit on the main line is Lake Park. Between Aitkin and Lake Park, from any station, one can find first-class fishing and hunting or take a nice

AT LAKE MELISSA.

outing. At many points good hotel or farmhouse accommodations can be secured, and at a few of them special efforts are made to cater to summer tourists. At Lake Park, Detroit, Perham, Brainerd, Deerwood, and Aitkin there are good hotels, and also at Fairhaven, a lovely summer resort on lakes Sally and Melissa, just south of Detroit. At Clitheral, Battle Lake, and Fergus Falls, on the branch line from Wadena, good accommodations are procurable.

North of Brainerd, reached by the Brainerd & Northern Railroad, is Leech Lake. It is a new suitor for popular favor, is in the heart of a timber region, *a large lake*, and with new and modern hotels. It bids fair to become exceptionally popular as a cool summer resort. Summer tourist excursion rates are in force to all these points.

These resorts form convenient resting points for the overland traveler via either Duluth or St. Paul. This is particularly so as regards Deerwood, Leech Lake, and Detroit, these points being on the main line or convenient thereto.

At Detroit and Leech Lake small steam launches make regular trips about the lakes.

The Valley of the Red River of the North

"Here is the place, the central place, where the agriculture of the richest region of North America must pour out its tributes to the whole world."

—Wm. H. Seward, 1860.

SOMEWHERE, from 6,000 to 10,000 years ago," writes Prof. Warren Upham, there was a great lake in what is now Minnesota, North Dakota, and Manitoba. The lake existed for a thousand years. Before that time there was a vast ice field there, a glacier. When it melted it couldn't flow away for a long time, because of physical obstacles, and so the lake took its place. The glacier really remained, only in a melted state. All that is now left of glacier and lake is Lake Winnipeg in Manitoba. The old lake was nearly 700 miles long. It has been called Lake Agassiz, in honor of Louis Agassiz, a noted American geologist, especially in the field of glacial geology. Its area was about 110,000 square miles, larger than lakes Ontario, Erie, Huron, Michigan, and Superior combined.

Where this lake once was there is now a large river and valley. This great valley lies about equally on each side of the river, and also about half and half in the States of Minnesota and North Dakota. It is about 300 miles long and from twenty-five to fifty miles and more wide. It is nearly as large as the State of Tennessee. The river is called, for a peculiar reason, the Red River of the North.

It is one of the most important valleys in the entire world. It is pretty nearly as well known in England, Russia, Germany, India, South America, and other countries as in the United States. If it rains hard there during the spring and summer that fact is cabled under the ocean to all those countries. If it *doesn't* rain that is also made known.

Why is this? Simply because the Red River Valley, or to be more precise, the people living there raise the best wheat in the world, and in such enormous quantities that it affects, favorably or unfavorably, the world's supply of it. If the wheat crop of any year is a large one in this valley, the price of wheat, in our own and other countries, is very liable

RED RIVER VALLEY.

PLOWING. SEEDING. REAPING. THRESHING.

to go down; if the crop happens, as will at times be the case everywhere, to be more or less of a failure, the price of wheat goes up.

The finest flouring mills in the world, and the largest, are located at Minneapolis and Duluth, Minn., and Superior, Wis. They were brought into existence by these great crops of wheat. Some of these mills will make daily, from 2,000 to 8,000 barrels of flour. The total output of Minneapolis flouring mills for 1895, exceeded 10,000,000 barrels of flour.

At Minneapolis, St. Paul, Duluth, and Superior are enormous elevators built to hold this wheat in storage. Large vessels, and many of them, sail the great lakes, carrying nothing on the downward trip but wheat or flour. Some of these steamers carry nearly 200,000 bushels of wheat at one time. The actual elevator capacity at Duluth and Superior is 26,000,000 bushels.

The crops of wheat raised in this valley, in recent years, will average not far from 50,000,000 bushels yearly. Professor Upham estimates its ultimate product, when the entire valley shall have been brought under careful cultivation, to be not less than 200,000,000 bushels a year. One can take a railway passenger or express train and ride all day north or south, without more than traversing the Red River Valley; and he will observe, on all sides, comfortable farm houses, large barns, and groves of trees set out by the farmers.

Lusty young cities are there also. Cities well paved, with electric-lighted streets, modern systems of water-works and sanitation, electric street-car lines, and modern improvements in general. Churches and schools are prominent features of the landscape, both in town and country.

Farms range in size from 80 or 160 acres, for the smaller, to 5,000, 10,000, 15,000, and 20,000 acres for the large, or bonanza farms. These latter raise enormous crops. It requires a small army of men and large numbers of horses and farming implements to work them. Labor-saving machinery is universally employed. All threshing is performed by steam and in other branches it is more or less used. The passenger in one of the Northern Pacific trains, either on the main line or the line running north to Winnipeg, passes in plain view of some of these bonanza farms. Near Casselton, on the through line, he will ride right across the celebrated Dalrymple farm.

In recent years diversified farming has been much practiced. Not only wheat, but grasses, rye, barley, oats, corn, sheep, cattle, hogs, poultry, and horses have been raised. Dairying is rapidly on the increase. Corn, once thought to be an impossible crop grows well. In 1895 the corn crop of North Dakota amounted to 1,000,000 bushels. Wool is becoming an article of commerce. There are more than 250,000 inhabitants in the Red River Valley, and they will compare favorably in prosperity with the corresponding number of people in any section of our country.

A Great Cattle Range

The Cattle upon a Thousand Hills.—Psalms l: 10.

IN THE western part of North Dakota the Northern Pacific Railway passes through a region, the counterpart of which is not to be found in this country at least. It is a land kaleidoscopic in character, of dissolving views, strong sculptural effects, warm tones, and a fascinating history, physically speaking. In olden time the trappers, *voyageurs*, etc., gave to it a name, appropriate and fitting from their point of view. Unfortunately, as it came into more common use the name was shorn of its qualifying feature, and, as thus used, was perverted and gave an erroneous idea of the land.

Mauvaises terres pour traverser, or Bad Lands through which to travel, meant just what they said. Bad Lands, alone, to which it was curtailed, was a misnomer and carried an idea the very opposite of the truth.

A name far more apropos is Pyramid Park, as it is now called.

To the ordinary traveler the region is interesting because of the rare scenic effects found. The combination of helter-skelter cliffs and buttes, the tangled, jumbled ravines and hills, and dominating it all, the overwhelming effect produced by the sensational colors, is beyond comparison with any similar known region.

Scarce a living thing, though, will the car rider see, and therein he will be deceived. A census will show, say 250,000 prime cattle, 5,000 horses, and the requisite number of men, women, and children to look after them. Through the heart of the flaming land with its odd rock fortresses and battlements, flows the sluggish Little Missouri River. Alongside it and its small tributaries, comfortable ranches are found. All the garden truck necessary can be grown on the ranches, and there are upland meadows which afford sufficient wild grass of a nutritious sort, to supply the demands for the winter feeding. The valley of the Little Missouri is quite heavily timbered, principally with cottonwoods.

Good water is found in wells in sufficient quantity for domestic uses, and also for stock purposes in winter. The region is eminently fitted for a stock range. Running water and timber are scarce and the country is

1. BRANDING A CALF.

2. PETRIFIED TREE STUMP, PYRAMID PARK.

3. A BUNCH OF CATTLE.

4. BRINGING HOME GAME, PYRAMID PARK.

too rough for an agricultural one. The hills, slopes, draws, etc., are covered with the finest of grasses, the wild ravines and abrupt gulches furnish the best of protection against the storms of winter. The water and timber supply is ample for the needs of the country as a stock range.

The snowfall does not exceed six inches and it is no obstacle to successful cattle raising. In winter the thermometer may range between 30° and 40° above zero and 30° to 40° below. The latter figure is seldom reached, and is maintained for only two or three days. Such weather is invariably unaccompanied by wind, and the dry cold is much less serious in its effects than a lesser degree of temperature would be in a humid climate. The elevation of this region ranges from 2,000 to 3,000 feet above the sea. During storms the cattle seek the cover afforded by the deep ravines, and undergo little physical discomfort.

The region under consideration extends well across the Montana State line. In summer the cattle are driven out to the higher prairies on the edges of the "Bad Lands," and in the fall brought in near to the Little Missouri and other streams. The weaker stock are kept near the ranches, where they can be fed and watered. The others rustle for themselves, and eat snow to satisfy the cravings of thirst. This particular section of country has perhaps, nearly all the stock now that can be well pastured. There is still room for a few more ranchmen in a rather small way. Quite large areas, comprising hills, ravines, plateaus, and valleys, are surrounded by wire fences. The fenced lands are in the vicinity of the ranches.

The grasses found in this region are of the finest varieties. The small bunch grass, characteristic of the West and greatly prized by stock men, is found in abundance. A short, blue stem grass also grows freely. From elevated points, I have seen a depression among the hills so covered with this variety that the effect was in reality a decided blue. Grama and buffalo grasses are also found.

A variety of sage, a small bush unusually delicate in texture and color, is plentiful, and furnishes a nutritious winter food, if, for any reason, the grasses fail. The grass cures on the range and is more valuable cured than in the green state. Cattle fattened on the cured grass take on a firmer and better quality of flesh than when pastured on the uncured grass.

The character of the grasses and of the region in general, in its value for stock raising, is shown in the fact that the average yearly loss for steers is not more than 5 per cent.

The bulk of the cattle come from Texas. The great plains of the Lone Star State and its warm climate seem to make it the finest cattle-breeding country in the West. When they attain the age of two or three years the cattle are sent to the Northern country, and there become much

finer beeves than they do in the South. They are shipped in to the Pyramid Park country in the spring, coming the greater part of the distance by railway. At this time the grass is fresh, green, and sweet, and the cattle improve in condition from the outset.

They are kept on the range usually until four years old and then sold. These Texan cattle cost on an average, delivered on the northern range, $14.00 to $15.00 per head for two or three year old steers. When sold, say in the Chicago market, they will bring the owner $33.00 to $45.00 if the demand is good.

The character of the stock is constantly being improved. Native calves are dropped from April to July, and a native yearling is as good as a two-year-old Texan steer.

There is little sickness or disease among the cattle. The purity of the atmosphere, the rare quality of the range, the light snow fall, and the fine natural protection afforded from storms, all combine to produce this result. It will prove instructive to one interested in cattle raising to study the subject on this range. It will then not be hard to understand how the term Bad Lands utterly fails to fit the locality, except, as before mentioned, in respect to traveling through it. And even in that respect it has improved, for good roads and trails cross the country in all directions. J. W. Foley, at Medora, will provide accommodations, including horses, camping outfits, etc., for those desiring to see this weird land, at reasonable rates. Cedar Cañon and the Burning Mine are two points near Medora worthy a visit.

Yellowstone National Park

"The sublime scenes of our natural Wonderland surpass all my expectations. The Grand Cañon of the Yellowstone is of course the climax. As I beheld it to-day, its long kaleidoscope of varied colors, its castles and cathedral spires sculptured by the Deity, and heard the voice of its magnificent cataract, I felt it was a place where the Finite prays, the Infinite hears, and Immensity looks on."
—John L. Stoddard.

IT IS now a quarter of a century since the Yellowstone Park first became known to mankind and was set aside, dedicated to the world as a pleasure ground. Within that time thousands have visited it yearly and have been impressed by the wide range of the phenomena found there. This is one of its great peculiarities. It is, so to speak, many sided in its character. It has all that other parks have, and much more. It boasts unusual features uncommon to parks. It is a park wrought by nature, but into which she has thrown lavishly, and with consummate skill, the wonders of the universe. Within a space of about 3,344 square miles she has concentrated such a variety of objects as one would only expect to find scattered throughout the universe.

Not this alone. In many cases she has so grouped them, as to bring phenomena of a certain character, yet more or less diversified, together, so that one is able to study them to better advantage, and carefully note these differences. This is especially valuable for scientific study and comparison. The great park may be said to be an aggregation of smaller parks. The park-like character of the region is evident upon every hand. It is not park-like in the meaning of the word as usually applied to city parks. There, there is much that is artificial — often the park is entirely so. Yellowstone Park is natural — as nature has made it. There are no artificial fountains, hand-planted groves, lawns, grottoes, lakes fed by artesian wells, etc. Instead, there are mighty mountains, great lakes fed by melting snows and springs, dashing rivers of both hot and cold water, many and great cataracts, deep and wonderfully-made cañons where the colors of the rainbow are almost put to shame, translucent springs,

painted cliffs, spouting geysers, mountain valleys, mud volcanoes, sulphur mountains, and thousands of elk, deer, and antelope. Bears also are there, but not given to marauding, and beavers, wild fowl, and feathered game. The streams and lakes are full of trout, that the angler is at liberty to entice from their cool retreats, if he desires.

Yellowstone Park is not for a city, a county, a state, a nation only — but for the *World*, and to it come denizens from every country, people speaking every tongue. The rich and the poor, the saint and the sinner, the young and the old, the native and the foreigner may be seen traveling through this park in truly cosmopolitan fashion. There is something there that persons of all degrees and conditions in life can appreciate and enjoy. It takes a little time to see this park — it can not be seen in an afternoon, or a day. From where the detour from the main line of the Northern Pacific Railway is made, it requires six days to travel the round of the park. The tourist is not *compelled* to make the park tour in six days, he can spend two weeks, or a month, or a longer time if he desires, and extend his observations.

TRANSPORTATION WITHIN THE PARK.

At Cinnabar, fifty-one miles from the main line of the Northern Pacific Railway and the terminus of the Park branch line, the journey by rail ends. Concord coaches, constructed especially for Yellowstone Park travel, meet the tourist at this point and are his means of conveyance within the Park. These coaches are well built, pulled by four and six horses, driven by careful drivers, and arranged in all respects for the comfort of the occupants.

CUPID'S CAVE.

They will carry from five to ten passengers each, with necessary luggage. It is not customary to take trunks beyond Mammoth Hot Springs. Tourists may stop over at any one or all of the hotels without extra expense for transportation by giving the Transportation Company proper notice in advance. A certain distance is driven each day, and at night the traveler is housed in a hotel set down in the heart of the mountains. Ample time is afforded to see the objects of interest near the hotels, and en route. At some of these places an entire day is given to sight-seeing.

THE PARK HOTELS.

Modern hotels, commodious and well appointed, are located at such points as best subserve the interests of the tourist. At other points lunch

1. HOTEL AT GRAND CAÑON.
2. FOUNTAIN HOTEL (LOWER GEYSER BASIN).
3. MAMMOTH HOT SPRINGS HOTEL.
4. HOTEL AT YELLOWSTONE LAKE.

stations are maintained throughout the Park season, from June 1st to October 1st. These hotels are steam heated, electric lighted, supplied with bathrooms, and in one case—the Fountain Hotel—with hot water from one of the natural springs.

The following table may be of interest in this connection :

TABLE FOR TOURISTS.

PLACE.	Accommodations.	Tourist Capacity.	Elevation in feet above Sea	Miles from previous Station.	DAILY RIDE.
Cinnabar			5,179	*51	1st day.
Mammoth Hot Springs	Hotel	150	6,215	7	
Norris Geyser Basin	Lunch Station	None	7,400	20	2d day.
Lower Geyser Basin	Hotel	250	7,200	20	
Upper Geyser Basin	Lunch Station	None	7,300	9	3d day.
West Arm Yel. Lake	Lunch Station	None	7,741	19	4th day.
Outlet Yellowstone Lake	Hotel	125	7,741	19	
Grand Cañon	Hotel	250	7,850	17	5th day.

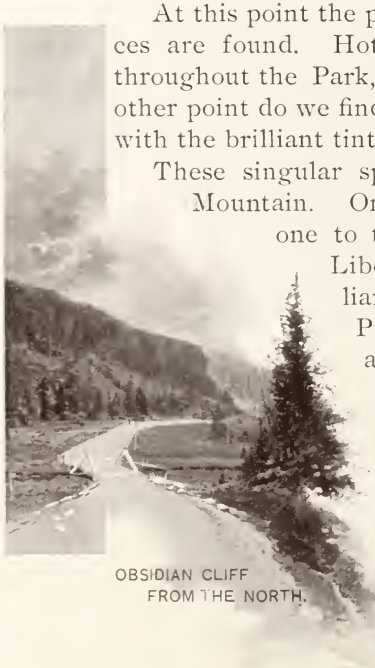
* From Livingston.

On 3d day's drive tourists return for night to Fountain Hotel.

The 6th day's drive is from the Grand Cañon to Cinnabar via short route, via Norris Basin, 39 miles.

MAMMOTH HOT SPRINGS.

At this point the principal hot springs with their accompanying terraces are found. Hot pools are scattered abundantly at other places throughout the Park, but they are quite different in character. At no other point do we find the peculiar cliffs or terraces found here. These, with the brilliant tints seen in the pools, excite the liveliest interest.



OBSIDIAN CLIFF FROM THE NORTH.

These singular springs cover a wide area on the side of Terrace Mountain. One tier succeeds another, and the trail winds from one to the other by easy gradients. At the base stands Liberty Cap, an extinct geyser or spring cone of peculiar appearance. Above it lie Cleopatra, Minerva, Pulpit, Mound, and Jupiter Terraces. Still higher are the Devil's Kitchen, Cupid's Cave, Narrow Gauge Terrace, Elephant Back, Angel Terrace, etc. The tourist will be quick to note that, while evidently of the same general character, these are quite dissimilar. During the season of 1896, the two most striking objects were the Orange Geyser and Narrow Gauge Terrace. An entire afternoon is devoted to climbing leisurely among these terraces under the leadership of a guide.

An additional feature of interest usually, is the presence of some antelope fawns and elk calves in a wire enclosure beyond Jupiter Terrace. They are quite tame and enjoy the presence of strangers. One can pet them, and they will eat sugar from the hand, gazing meanwhile in innocent wonderment and trusting confidence.

SOUTHWARD BOUND.

After breakfast tourists take the coaches, being grouped as far as possible in congenial parties. Straight toward Bunsen Peak they go, and when they can progress no farther, the road turns to the right, and behold! Golden Gate opens before them.

Slowly the sturdy horses drag the vehicle through the very attractive cañon. On one side Bunsen Peak climbs skyward, on the other, and closer to the moving coach, the vertical yellowish wall of rock rises 200 to 300 feet above. Soon the end of it is reached and the road leads out and down a large and beautiful valley. Mountains surround it, green meadows cover its wide expanse, trout streams meander it, and trees relieve it from monotony. Swan Valley is its name. Following in succession come Willow Park, Obsidian Cliff, a huge black rampart of nature's glass of more than 200 feet altitude, Beaver Lake, Roaring Mountain, and Twin Lakes. By this time lunch hour is almost at hand, and sure enough, as the coach whirls around a bend of the road, the eye rests upon a collection of tents and lunch station is reached.

NORRIS GEYSER BASIN.

At the lunch station proper there is nothing in sight to indicate that there is a geyser within a thousand miles. After the inner man is attended to, in obedience to the directions of the guides the tourists cross the divide near at hand. Without warning a wide, long plain opens to view.

Is it the site of ancient Sodom or Gomorrah, and am I in the land of Canaan instead of America, or is it the scene of a recent and vast conflagration, and this all that is left of a once prosperous community? No, it is neither. There is no pillar of salt visible, neither are there piles of brick, stone, and charred timbers. It is Norris Geyser Basin; but one is excusable for making such blunders hereabouts. That white, bellowing thing over yonder is the *Black* Growler. It is the only steam geyser in the Park, and it is always roaring — is never quiet, night or day. Just here is the Minute Man. That fellow always meets his engagements. Out with your watch and time him. Every fifty seconds he is due to dance and play, and he is always on time.

Springs of sulphur-yellow water are boiling furiously, and near them are other pools of boiling water, but green, pearl, etc., in color. One of the really beautiful things here is a terrace — a small one — like white marble. There are long, wavy water ribbons, too, where the colors are green, saffron, pearl, etc. The Devil's Inkstand, Emerald Pool, Congress Spring, and the Monarch Geyser are the other prominent members of this geyser community. They are easily found, and near the road.

STILL SOUTHWARD.

Leaving Norris Basin, Elk Park and Gibbon Meadows are passed, and the black defile of Gibbon Cañon looms up ahead. Beautiful Beryl Spring is reached, and then Gibbon Fall. As the road turns westward a fine view down the cañon opens out. Then, after an exhilarating ride in the depths of the cañon, the good, broad road climbs easily out over the divide, stretches southward, and dips down into the valley of the Firehole River. If the day is clear, from the divide there will be a splendid view of the Three Tetons, which lie far to the south and are covered with snow.

THE GEYSER BASINS.

The road from the Lower Basin follows the Firehole River, passing the Midway Basin — Hell's Half Acre — en route.

The small streams in the Lower Basin appear to have been formed by hot springs and pools. Near the Fountain Hotel are the Fountain Geyser, Clepsydra Spring, and the wonderful Paint Pots. The first and last are very fine, indeed. The Fountain plays at quite frequent intervals and is very regular in its action, throwing out an enormous mass of water from fifteen to forty feet, with occasional jets going higher. The Paint Pots are curious things. The finest of clay is superheated and continually boils in a sluggish logy sort of a way. The clay is of the most delicate hues, pink, pearl, white, etc. Because of the size, these are called the Mammoth Paint Pots. They will repay examination.

A mile and a half from the Fountain Hotel, and easily reached by bicycle, tourist wagon, or by walking, lies a hidden basin full of nature's caprices. At the entrance, as if on guard, stands the immaculate *White Dome*. As one approaches, he almost expects to be challenged and asked for a countersign. If such challenge is given, it is in a curious fashion, in the form of a geyser eruption, for the White Dome is a geyser. It is not unlike the Castle Geyser, or the White Pyramid of the Upper Geyser Basin. The geyser is a very white, rather dome-shaped mound, built up

RIVERSIDE GEYSER.
UPPER GEYSER BASIN

A REFLECTION, UPPER GEYSER BASIN.

from the secretions of its waters, and is the most conspicuous feature of the locality. Its performances are hardly in keeping with its appearance, but are interesting nevertheless. It is perhaps 25 feet high, with a circumference at the base of 75 or 100 feet. Its eruptions come at intervals of from twenty to forty-five minutes, being somewhat irregular, and the water is thrown to a height of from ten to twenty-five feet. This relegates the geyser to the lesser class so far as the question of power alone is concerned. But, as steam forms a good part of its eruptions, the display is apt to be one of much beauty. This is especially so if the wind be blowing but gently. Then, viewed from a distance, the steam, as it becomes dispelled, assumes fancy cloud or vapor forms. Some of it floats airily about, expanding more and more until it entirely vanishes. Some of it rises straight upward, a pillar of steam, until it, too, loses itself in the atmosphere high above. The volume of water gives body to the display, and near at hand the water jets can be discerned playing upward and outward. As the minor chords of a symphony have a characteristic, indefinable sweetness all their own, so these lesser, minor features of Yellowstone Park, like the White Dome, have an attraction for the tourist peculiar to themselves.

The principal object of interest here, however, is the Great Fountain Geyser. This is much larger in every way than the Fountain Geyser near the hotel, but the two are much alike. Along Tangled Creek the pools are strung like beads on a string, and a beautiful string it makes.

At Midway Basin, the tourist gazes

CRATER, OLD FAITHFUL GEYSER.
CASTLE WELL, OLD FAITHFUL GEYSER IN DISTANCE.
OLD FAITHFUL GEYSER, UPPER GEYSER BASIN.

upon the chief among geysers. It has been many years now since Excelsior aroused itself from its lethargy. As now seen, it is a large and beautiful pool, not evidencing in the least, the tremendous power it displays when the fit is on. It is a great pool giving off large quantities of steam. On one side of it lies Prismatic Lake, and just north of it is Turquoise Spring. These three monopolize the geyserite plain at Midway, and the world is challenged to show "Three Graces" that can compare with them. Of their kind they are perfect.

PUNCH BOWL.

FREQUENT GEYSER.

The Upper Basin really comprises three detached areas. Biscuit Basin is the first one to be seen by the tourist. The name is given from the number of geyserite nodules found, of about the size and shape of biscuits. There is much of this basin lying alongside the road and it has many beautiful pools. Following this is the Upper Basin proper, and then over on Iron Creek, just beyond, is the third one. In the main basin all the principal geysers, Old Faithful, Bee Hive, Castle, and others, are located. In the third division are Black Sand Basin, Sunset Lake — an exquisite pool — Cliff Spring, Emerald Pool, the Three Sisters, and others. The better and easier way to see these is to take the tourist wagon after lunch, which makes the tour of the basin.

No person who visits the Upper Geyser Basin should fail to see Black Sand Pool. It lies to the south of the main Upper Basin, and is reached by a road leading past the beautiful Punch Bowl Spring. Black Sand Pool is an oval spring some 40 feet long by 20 or 25 feet wide. The water is of a light blue sapphire or turquoise color — it is not easy to name the precise tint in many instances — extremely beautiful, from whose surface the steam constantly rises. The great peculiarity about it is that the encircling sides, which are in places fifteen feet high or more, are composed of black, probably decomposed obsidian, sand.

One of the interesting features of the Park springs and pools is the great variety of their rock or geyserite basins, both above and under the water. Of course the unusual purity and clearness of the water contributes to this. The beautiful colors thus seen in the shelving sides of these rare wells never fail to excite the wonder and admiration of the spectator. In Black Sand Pool these sides slope far down to the center of the basin, to the tube or funnel that supplies the water. They are of a delicate ashes-of-roses hue, and contrast remarkably with the black sand environment of the spring.

A POOL IN UPPER GEYSER BASIN.

The outlet is at the farther end of the pool, and there is found another surprise. The black walls break down and the waters have eaten out what might be termed a little cañon, from three to twelve inches deep, through a little ravine. The water in its descent leaves a coating on the sides and bottom of the little cañon. This coating assumes a variety of colors, in consonance with the changes of temperature found in the water as it gradually cools. The result in this instance is astonishing. The water course is a variegated ribbon, brilliant in its coloring. The predominant hues are of the family of yellows. Cream, white, and neutral tints are found and streaks of olive-green, reds, faint pinks, and terra-cottas, with markings of arsenic green add to the beauty of the display.

A number of the prominent geysers play only after many hours of quiescence. The Grand, Splendid, Bee Hive, Economic, Riverside, Fan, Mortar, and Castle play at more or less frequent intervals. Old Faithful is the most frequent of the larger geysers and regularly plays every seventy minutes.

In the *Northwestern Christian Advocate* of Chicago, of September 30, 1896, appeared an article by Bishop Warren of the M. E. Church, entitled "Hunting a Geyser." From this excellent article I make the following excerpt, regretting that lack of space precludes its insertion in full:

> I knew its habitat. I had haunted it all the morning. I knew the great raised platform on which stood a castellated rock more than twenty feet square, that had been built up particle by particle into a perfect solid by deposits from the fiery flood. In the center was a brilliant orange-colored throat that went down into the bowels of the earth. That was not the Geyser, it was only the trump through which the Archangel was to blow. I had heard the preliminary tuning of the instrument.
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> * * * * * * * * * * *

This Castle Geyser is not registered to be quiet more than thirty hours, nor to indulge in preparatory spouts of more than six hours. When I finally camped to watch it out, all these premonitory symptoms had been duly exhibited. I first carefully noted the frequency and height of the spouts, that any change might foretell the grand finale. There were ten spouts to the minute, and an average height of twenty feet. Hours went by with no hint of change, ten to the minute, twenty feet in height.

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CASTLE GEYSER.

Six hours of waiting were nearly over when, without a single previous hint of change, one descending spout was met by an ascending one, and a vast column of hissing water rose with a sound of continuous thunder 100 feet in the air, and stood there like a pillar of cloud in the desert. The air throbbed as in a cannonade, and the sun brushed away all clouds as if he could not bear to miss a sight he had seen perhaps a million times. Then the top of this upward Niagara bent over like the calyx of a calla, and the downward Niagara converted all that elevated masonry into a rushing cascade. Shifting my position a little, I could see that the sun was thrilling the whole glorious outpour with rainbows. At such times one can neither measure nor express emotions by

words. In the thunder which every one can hear there is always, for all who can receive it, the ineffably sweet voice of the father, saying: "Thou art my beloved son, and all this grand display is for your precious sake." In sixteen minutes the flow of waters ceased, and a rush of saturated steam succeeded. At the same time the fierce swish of ascending waters and of descending cascades ceased, and a clear, definite note, as of a trumpet, exceeding long and loud, was blown. No Archangel could have done better. As the steam rolled skyward it was condensed, and a very heavy rain fell on about an acre at the east as it was drifted by the air. It looked more like lines of water than separate drops. I found it thoroughly cooled by its flight in the upper air.

YELLOWSTONE LAKE.

There is an individuality about lakes. Perhaps the most striking thing about Yellowstone Lake is its high altitude. It is up among the mountains and clouds nearly a mile and a half — 7,741 feet — above where the sportive summer girl sits on the beach at the Atlantic Ocean while the lazy wavelets ripple about her dainty toes. But as high as it is the mountains rise higher still by thousands of feet. In a solemn, owl-like fashion they blink down at the lake, and the lake winks back at them. These mountains are well-defined peaks, and cones, and turrets, and nearly all are named. Some of them are in this way redolent of the old explorers, the men who first braved the perils and difficulties of an unknown, untrodden wilderness. Such are Colter Peak and Mount Doane. Other names represent, to some extent, the natural appearance of the mountains to which they are applied, as Cathedral Peak or Table Mountain. Again, Grizzly Peak may mean that a monstrous grizzly bear was stumbled upon in the dense forest about it, and that high above the summit of Eagle Peak, the eagle was seen winging its graceful flight, by those who in early days climbed their rocky sides. On the south side of the lake Mount Sheridan, over 10,000 feet high, perpetuates the memory of Fighting Phil Sheridan.

The lake is not only one of the two or three highest known lakes in the world, but it is peculiarly irregular in form. At the west and south it has long arms or claws that wind in among the mountains. The West Arm of the lake is almost a smaller circular lake joined to the main lake by a narrow body of water. There are several small islands and in the middle of the lake is a large island. The water is cold, full of trout, and the shores are varied and picturesque. The lake is an enlargement of the Yellowstone River which rises in the south and flows north and east to the Missouri River. At the point where the river leaves the lake the Lake Hotel is located. Among all the Park hotels this is the one the tourist will probably choose if he wishes to remain a few days and rest. Here he can fish, row a boat, go out to the Natural Bridge, lounge among the trees, watch the bears at night when they come to feed, or enjoy the splendid view, for the hotel overlooks the entire

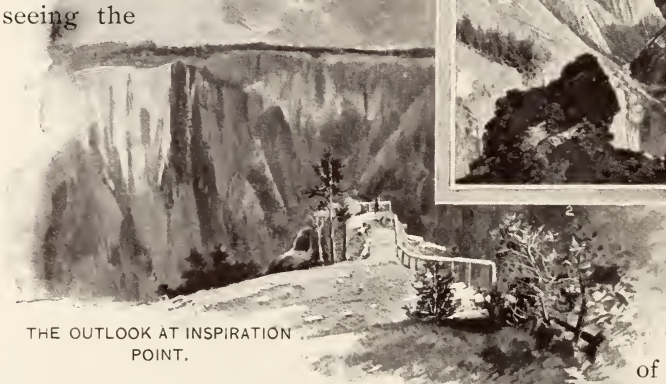
length of the lake and the mountains on the east. Or he can scour around on horseback over an interesting region.

Leaving the lake the road follows the left bank of the Yellowstone River to the Grand Cañon. It crosses Hayden Valley and skirts the base of the Crater Hills or Sulphur Mountain after passing Mud Volcano.

THE GRAND CAÑON.

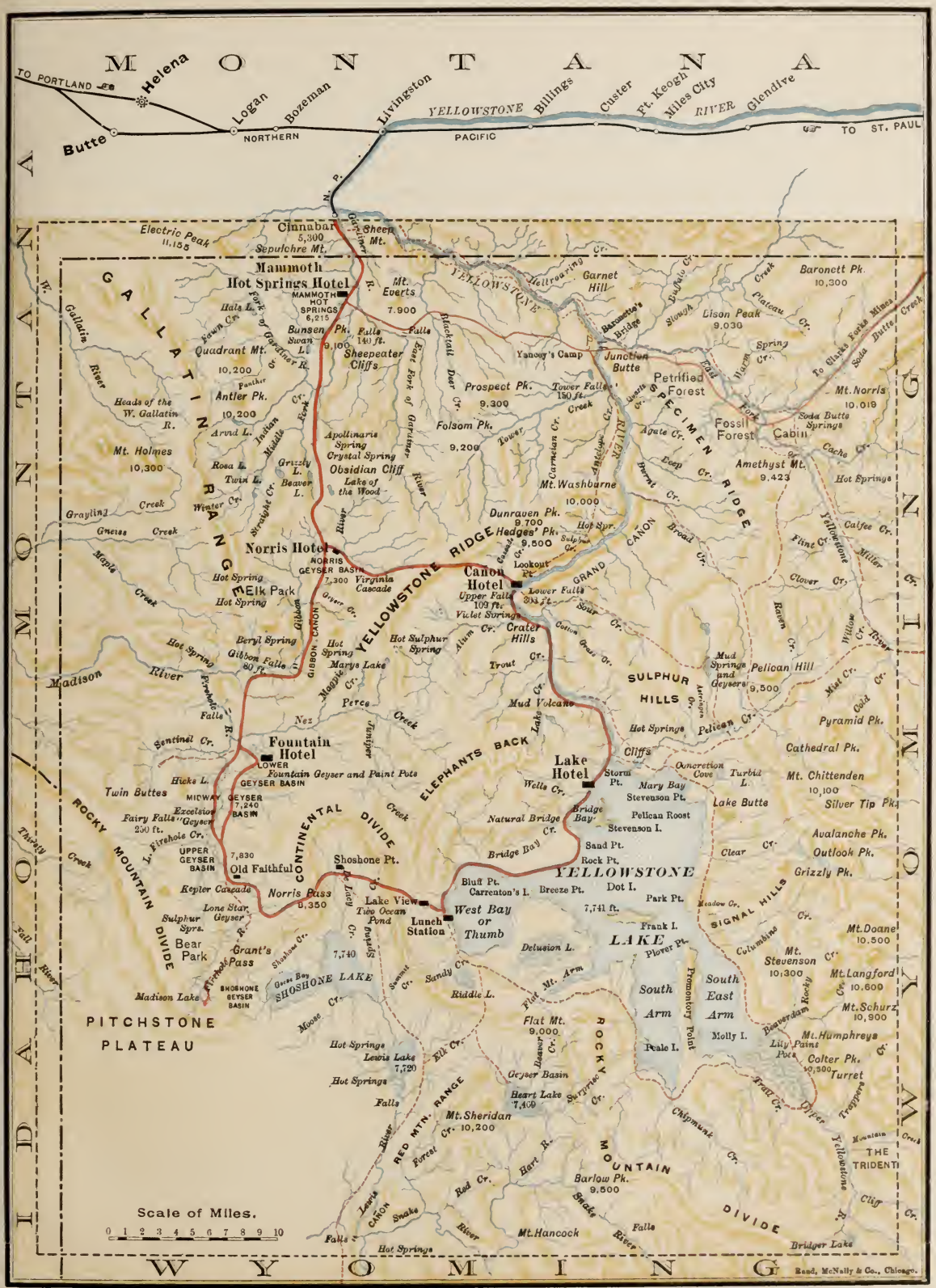
Who can describe the indescribable? Thousands of columns of description have been written, in vain attempts to depict the glories of this inimitable effort of nature. I confess that much of this has seemed to me to be of the nature of gush, a straining after effect. And yet I think it is entirely natural. The first effect after seeing the Grand Cañon is to develop in one who writes or talks of it, a tendency to effusiveness and exaggeration in word painting. One becomes so full, so saturated, so completely on fire and enraptured under the revelation, as to be absolutely drunken with enthusiasm and hardly responsible for his words.

GRAND CAÑON FROM GRAND VIEW.



THE OUTLOOK AT INSPIRATION POINT.

In one sense, and that the highest, no word painting can exaggerate the grandeur, majesty, and thrilling splendor of this magnificent cañon. But the enthusiast, made drunken by these glories, may make use of such comparisons and figures of speech as to produce exactly the contrary effect to that intended, or give, in one or more respects, an erroneous idea of the subject. This rule applies, of course, to any piece of descriptive work. There is this consolation here however. If the sightseer *has* been misled in any particular, he is quite sure to find that in other ways "the half has not been told," and a few minutes suffice to readjust the mental focus so that no real harm is done.



MONTANA
IDAHO
WYOMING
TO PORTLAND
Helena
Butte
Logan
Bozeman
Livingston
Billings
Custer
Ft. Keogh
Miles City
Glendive
YELLOWSTONE RIVER
NORTHERN PACIFIC
TO ST. PAUL
N. P.
Cinnabar 5,300
Sheep Mt.
Sepulchre Mt.
Electric Peak 11,155
Mammoth Hot Springs Hotel
MAMMOTH HOT SPRINGS 6,215
Mt. Everts 7,900
Garnet Hill
Baronett Pk. 10,300
Lison Peak 9,030
Bunsen Pk. 9,100
Falls 140 ft.
Sheepeater Cliffs
Quadrant Mt. 10,200
Antler Pk. 10,200
Heads of the W. Gallatin R.
Mt. Holmes 10,300
Yancey's Camp
Junction Butte
Petrified Forest
Prospect Pk. 9,300
Tower Falls 150 ft.
Folsom Pk. 9,200
Fossil Forest
Cabin
Mt. Norris 10,019
Soda Butte Springs
Amethyst Mt. 9,423
Apollinaris Spring
Crystal Spring
Obsidian Cliff
Lake of the Wood
Mt. Washburne 10,000
Dunraven Pk. 9,700
Hedges' Pk. 9,500
Norris Hotel
NORRIS GEYSER BASIN 7,300
Virginia Cascade
Canon Hotel
Lookout Pt.
Upper Falls 109 ft.
Lower Falls 303 ft.
Violet Springs
Crater Hills
Elk Park
Hot Spring
Beryl Spring
Gibbon Falls 80 ft.
Hot Sulphur Spring
Marys Lake
Mud Springs and Geysers
Pelican Hill 9,500
Pyramid Pk.
Cathedral Pk.
Mt. Chittenden 10,100
Silver Tip Pk.
Avalanche Pk.
Outlook Pk.
Grizzly Pk.
Mt. Doane 10,500
Mt. Stevenson 10,300
Mt. Langford 10,600
Mt. Schurz 10,900
Mt. Humphreys
Colter Pk. 10,500
Turret
Fountain Hotel
LOWER GEYSER BASIN
Fountain Geyser and Paint Pots
MIDWAY GEYSER BASIN 7,240
Excelsior Geyser
Fairy Falls 250 ft.
UPPER GEYSER BASIN 7,830
Old Faithful
Kepler Cascade
Lone Star Geyser
Sulphur Sprs.
Bear Park
Grant's Pass
Madison Lake
SHOSHONE GEYSER BASIN
Shoshone Pt.
Norris Pass 8,350
Lake View
Two Ocean Pond
Lunch Station
West Bay or Thumb
Lake Hotel
Storm Pt.
Mary Bay
Stevenson Pt.
Pelican Roost
Stevenson I.
Natural Bridge
Bridge Bay
Sand Pt.
Rock Pt.
Dot I.
Park Pt.
Frank I.
Plover Pt.
Bluff Pt.
Carrenton's I.
Breeze Pt.
Delusion L.
Riddle L.
Flat Mt. 9,000
Peale I.
Molly I.
Lily Paint Pots
Geyser Basin
Heart Lake 7,400
Mt. Sheridan 10,200
Barlow Pk. 9,500
Mt. Hancock
Lewis Lake 7,720
Hot Springs
Falls
Madison River
Gallatin River
Yellowstone River
Grayling Creek
Gneiss Creek
Maple Creek
Firehole R.
Sentinel Cr.
Twin Buttes
Hicks L.
Thirsty Creek
Fall River
Lewis River
Snake River
Red Cr.
Hart R.
Chipmunk Cr.
Trapper Cr.
Upper Yellowstone R.
Bridger Lake
Cliff Cr.
Mountain Creek
THE TRIDENT
GALLATIN RANGE
YELLOWSTONE RIDGE
SPECIMEN RIDGE
SULPHUR HILLS
ELEPHANTS BACK
CONTINENTAL DIVIDE
ROCKY MOUNTAIN DIVIDE
SIGNAL HILLS
ROCKY MOUNTAIN DIVIDE
RED MTN. RANGE
PITCHSTONE PLATEAU
SHOSHONE LAKE
YELLOWSTONE LAKE
South Arm
South East Arm
Promontory Point
Scale of Miles.
0 1 2 3 4 5 6 7 8 9 10
Rand, McNally & Co., Chicago.

I find that the oftener one sees the cañon, and the more it is studied, the loftier is the conception of it, the truer its real proportions and relations are grasped, and the more exact and real is the pen picture of it.

As last summer, I again stood and gazed upon those matchless walls, fairly glowing in the morning sun, I thought I could understand how many, especially those well along toward the evening of life, standing thus, might gain a better appreciation of the words "Jerusalem the Golden," than they had before known.

Everything conduces to a supreme effect. The river, changing from a quiet stream to one of turmoil and rapids, then the jump over the Upper Fall, a gathering again and the second leap at the Lower Fall down into the deep abyss; the gently sloping plateau at one side with the umbrageous forest pushing down to the cañon's edge; Dunraven Peak and Mount Washburn on the opposite side, with their flanks carried down to the brink and thrusting a large timbered rectangle half-way down the northern wall, and masking on that side every indication of a cañon; the thunder of the greater fall; the wondrous sculpture of the walls, and above all, the opulence of color with which the walls are deluged, all form a combination, a monopoly, a "trust" of nature, that the eye of man will find nowhere else.

It seems as though everything needed to make the perfect picture is there; subtract anything and it would lack completeness.

At times, when watching the rush and roar of the geysers, I have felt like hurrahing, throwing my hat in the air and conducting myself as the small boy is wont to do. I have never felt disposed to levity when looking into the Grand Cañon. I have seen it in many moods, if I may so put it, and each time observed something not before seen, but never have I looked upon its sublime escarpments and not felt that I was in the presence of Infinity, and that in the soft whisperings of the wind I could all but hear the gentle breathings of the great Jehovah.

The best way to study the cañon is to go alone, or with wife or other congenial companion, and sit on the projecting rocks and commune with it. In this way there will come to be a sort of companionship with the cañon itself. It will be invested with a personality, a feeling of *camaraderie*. The moaning of the wind, the weird cries of the eagles and their young from the bristling pinnacles far below you, the deep-toned thunder of the cataract, will all seem like living voices of the cañon calling to you. The spirit of the cañon will take hold upon you, the spell of the cañon will be weaved about you, you will scarcely be of the earth, but will float dreamily upon the vast sea of imagination and thought.

Where the road turns to the left at Grand View, walk out over the salient of rock at the angle itself, sit down on the farthest chimney shaft,

over rocks naturally white but now blackened by weathering, and see if the foregoing statement be not true. If possible go there in the morning or in the latter part of the afternoon. At noontime the light is too strong, and the details of the cañon are smothered, and the individuality of the walls killed. But with a soft morning or afternoon light every detail of one or the other of the walls leaps out from the general mass as if instinct with life. And what a wonderful sea it is that lies beneath and beyond us. A painted sea, not of water but of rock. And such painting! Try to distinguish the decided colors and their infinite variations. The most wonderful part of it is the rare blending, where one fades into another, and yet thou canst detect neither the beginning nor the ending.

At the brink of the cañon, on the north, the walls are dazzlingly white, becoming, farther down, black and rusty from weathering. This is the general effect. Intermingled with them are some grays, pearls, and faint yellows. Farther down the walls, the reds and terra cottas work in. Starting from the crest, wide avenues of pulverized or granulated material, bordered for hundreds of feet from the top by quaint rock pillars, sweep down to the water's edge. As they reach down, and yet farther down, they expand in area, and the white, gray colors above become faintly reddish yellow, then yellow, and then red, strong and flaming. On the opposite side, the inclination of the slopes is more abrupt and vertical, the color a dull, heavy, brownish yellow for the most part. At one point the wall is deeply splashed with a beautiful lavender of many shades, giving the name Lavender Point to the spot. This lavender field is pierced by many long graceful streamers of yellow and yellow-green. Beyond the lavender, the yellows become a strong lemon. Here and there ribbons of lavender stretch clear to the river.

On the north wall these lavenders are again found well down toward Inspiration Point, below the timber. There they are in combination with reds, yellows, and purples.

On both walls thousands of pinnacles, towers, obelisks, and needles seem to be growing like the trees around them. On the south wall there are gigantic buttresses supporting smaller ones. The north wall flares widely and carries the toboggan-slide areas, through which knife-like ridges and tongues of rusty rock are thrust.

Between our rocky perch and Inspiration Point, which stands well out into the cañon an absolute precipice almost aloof from the main wall, the forest pushes half way down to the river. Its dark green intensifies the vivid walls on each side of it. It also shelters numbers of deer, that can be seen if one wishes to climb down into it.

The pinnacles of rock below us are used by the eagles for nesting purposes. Their nests can be seen, as can also the young eagles, with the

naked eye. In a hasty search I found six or seven nests between Lookout and Inspiration Points.

As the road is followed down the cañon, a short distance before reaching Inspiration Point, an intensely interesting spot is suddenly stumbled upon. It is Castle Ruins. The name indicates the character of it. It is a superb piece of rock sculpture. The predominant color effect is yellow, and the slowly disintegrating wall has been sculptured into a most remarkable assemblage of what may well be called the ruins of ancient castles.

Inspiration Point is indeed a spot of inspiration. It is now reached directly by the road, is well railed about like Lookout Point, and has a good board walk and platform to walk out and stand upon. One seems to be hanging in mid-air, suspended over the gorge, so narrow is the Point and so far out in the cañon. Looking up the cañon the near view is exactly the reverse of that from Grand View. But it is somewhat more. The Lower Fall is now seen. It, of course, appears small from this distance, but it is there.

Then there is the view down the cañon. Not such as we have in the other direction, but a very different and contrasted one. I recall, while gazing down the river, that among others who stood there with me the last time I was there, was young Lenz, who was on his bicycle tour around the world, and who lost his life among the wild fanatics of the Eastern desert when safety was almost assured.

Inspiration Point commands a wider or rather a longer perspective, with a greater variety, than any other. No person should for any reason visit the Grand Cañon and fail to experience the exquisite pleasure derived from standing on that little promontory which may well be a source of inspiration to both gods and men.

YELLOWSTONE PARK WATERFALLS.

Yellowstone Park is the realm of the water-nymph. It revels in rills, mountain brooks, rivers, and lakes. It leaps about the cataracts, disports itself in the rapids, flits through the veils of spray that gracefully sway hither and thither, and haunts the hundreds of cool trout streams that wind from sunlight to shadow, from cañon to meadow. But it finds its chief delight in the waterfalls. And what wonder, when such cataracts, falls, and cascades are there. There is apparently no extended area in the park without them. At the Grand Cañon are the majestic, deep-toned thunders of the Upper Fall, 109 feet, and the Lower Fall, 308 feet high. Between the two, Crystal Cascade tumbles down a deep, dark glen into the river. Over near Yancey's is beautiful Tower Fall. Isolated in locality, it has for companions the many black, needle-like towers that are so stately. Near Norris Geyser Basin are the Virginia Cascades that

go pirouetting down a gentle declivity, alongside the road. At the head of Golden Gate is the little Rustic Fall, that glides with gentle murmur down into the cañon. Gibbon Fall, in the heart of the wild Gibbon Cañon, is a wide fan of foam and water sliding down the black, slippery rocks for a distance of eighty feet, still farther into the depths of the range. Near the Upper Geyser Basin is Kepler Cascade, leaping down into the gloomy, narrow gorge of the Firehole River.

If one will take horse and ride from Mammoth Hot Springs up the East Gardiner River road for three miles, he will be repaid by a sight of two or three lovely falls, deep among glens and mountain cañons. Overhung by dark rocks and mountains, with only the green trees for friends and companions, they are beautiful pictures in the midst of wild and rugged scenes.

Some of these falls and cascades deserve more than passing mention. The Upper and Lower Falls at the Grand Cañon are naturally the most important of these.

The Lower Fall is nearly three times the height of the Upper; it is at the head of the great cañon and can hardly be disassociated from it, and, therefore, borrows to a degree from the grandeur of the cañon view. The Upper Fall has as an accessory the fine stretch of rapids above it. The rapids, however, being subordinate to the former, while the Lower Fall is subordinate to the cañon, add far less of embellishment to the Upper Fall than the Lower Fall imbibes from the cañon. There is a royal, dignified grandeur in the Lower Fall that is seen and felt wherever the fall is seen or heard. You feel this as you look at it from Lookout Point, where its roar is plainly heard; you feel it when at Inspiration Point, where it is but partly seen and no sound of it comes; you feel it when walking along the

FALL OF MIDDLE GARDINER RIVER.

TOWER FALL, 110 FEET HIGH.

CRYSTAL CASCADE, NEAR GRAND CAÑON.

brink of the cañon above the fall, where its ponderous tone thunders in your ears but no sight of it can be had, and it is powerfully impressed upon you, as you stand by the cataract itself and gaze over the railing, fascinated by the terrific plunge of the waters into the boiling abyss.

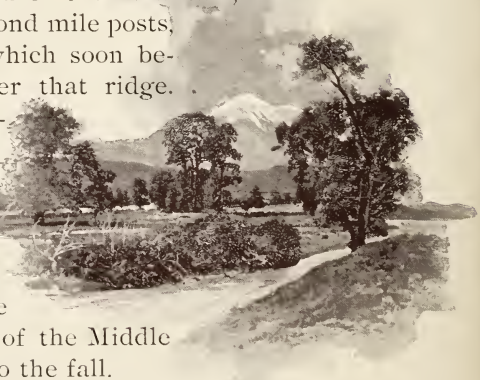
The Upper Fall, while lacking the great height and serious aspect of its congener, impresses itself with a manner emphatically its own. To me there is a charming personality in it. It seems almost as if endowed with sentiality.

One can sit on the rocks by the hour and see the water come racing down the rapids, steady itself in the circular bowl above the fall, and then go tearing over the edge, an angry, furious, kicking, fuming volume of white and green spray. Turmoil doesn't begin to express it. It is frantic, crazy, beside itself. For miles it has come flowing down from the lake, as a decorous, well-behaved river, until it can stand it no longer.

Like a boy released from school it must turn somersaults, hand springs, leap and jump for very joy at its freedom. And it does it. It is the personification of energy. And it doesn't entirely cease after it has made its dive. It only quiets down when some distance away from the foot of the fall. It is a rare exhibition of its kind, and the two falls form a pair hard to equal.

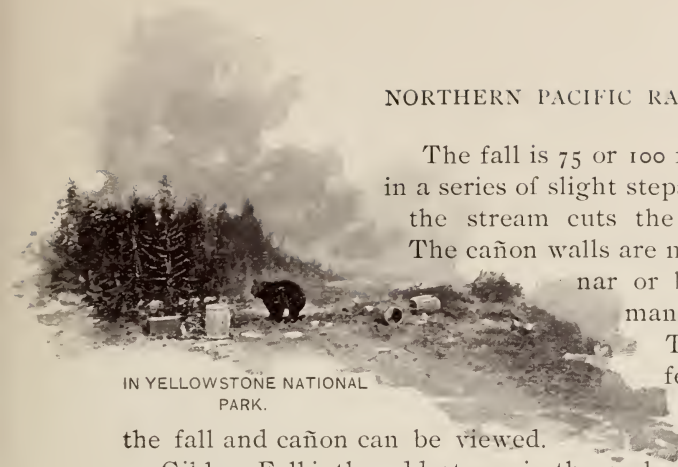
If the tourist who lingers for a day or two at Mammoth Hot Springs, or he who is unable, for the time being, to extend his trip beyond that point, wishes to indulge in a healthy constitutional or a pleasant horseback ride, let him note the following remark:

Cast your eye upon Bunsen Peak. See that ridge or hog back, scantily timbered, at the left and lower end of the mountain, and running toward you? Between the first and second mile posts, on the main road southward, a side road, which soon becomes simply a trail, leads away and over that ridge. At a distance of only three miles — just beyond the ridge — it comes to the edge of the Middle Gardiner River Cañon. The trail is perfectly plain, and the climb up the hog back not a hard one. The distance can be walked easily in an hour. The trail touches the brink of the cañon about one-half mile below the Fall of the Middle Gardiner, or Osprey Fall, and continues on to the fall.



EMIGRANT PEAK, NEAR YELLOWSTONE PARK.

The stream has eaten out a noble cañon that, while devoid of high coloring as is the Grand Cañon, is well worth seeing. It is cut through the lava, and the tone of the walls is a reddish brown and black.



IN YELLOWSTONE NATIONAL PARK.

The fall is 75 or 100 feet in height and goes down in a series of slight steps. The fall is formed where the stream cuts the lava at a narrow gateway. The cañon walls are mostly vertical, with a columnar or basaltic structure, and have many black needles and spires. The cañon is from 700 to 1,000 feet deep, and there are many salient points from which the fall and cañon can be viewed.

Gibbon Fall is the oddest one in the park. It is seen by the tourist from the stage coach. It is a large cascade rather than a fall, and its shape is very peculiar. It is placed amid surroundings that enhance its beauty, and altogether it is the most striking display found in the Gibbon Cañon.

Four miles beyond Yancey's, and this side of the junction of the two trails leading over Mount Washburn from the Grand Cañon, and where the trail crosses Tower Creek, is Tower Fall. There is, perhaps, all things considered, no more attractive waterfall in the park, exclusive of the Upper and Lower Falls at the Grand Cañon.

The little stream winds and twists about among black obelisks and needle-pointed towers that give the name to the creek and fall. Right in the midst of them it leaps the ledge and tumbles in a narrow solid mass 110 feet into the cañon below, and within a few yards empties into the Yellowstone River. The fall is very secluded, and is hidden among the speechless towers and the trees as if nature had been a bit selfish at one time. It lies below a high bluff on the left bank of the stream, and the trail to the left, after crossing the creek—going from Yancey's—leads directly to it. The spot and region is one of the most beautiful in the park. For a few days' camping the locality can not be surpassed.

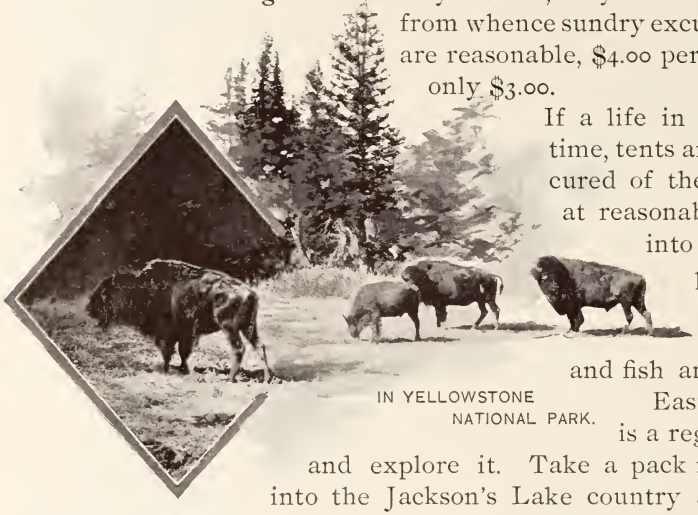
A PLACE FOR A VACATION SOJOURN.

Why is it that those who can, do not use this vast, inspiring domain as a place of recreation? In all the large cities of the land—New York, Boston, Philadelphia, Chicago, Baltimore, Cincinnati, St. Louis, etc., there are men and women of wealth and leisure who are sated with the monotonous humdrum of the sea shore, of fashionable watering places and resorts. Here is a region, new, far away from artificiality, where one can drink in inspiration and life from the very clouds themselves.

Let me appeal at least to those who can well afford both time and money, to go and try this wonderland among the mountains.

If you wish to be where you can abide not only with nature but also

have the companionship of the human kind, there are four hotels where you can mingle with the human throng. Located at places where the surroundings are radically diverse, they can be utilized as summer homes, from whence sundry excursions can be made. Prices are reasonable, $4.00 per day, and after seven days only $3.00.



IN YELLOWSTONE NATIONAL PARK.

If a life in the open is preferred for a time, tents and camp outfits can be procured of the Transportation Company at reasonable rates and a push made into the hills and groves and parks now and then. Set up the tent by one of the trout streams or lakes, and broil and fish and fish and broil.

East of the Yellowstone River is a region largely unvisited — go and explore it. Take a pack mule or two and go down into the Jackson's Lake country and rest for a week under the shadows of the Tetons.

From all such excursions return to the hotels and renew acquaintance with the geysers, lake, cañon, or hot pools.

A climb up Electric Peak; a ride over Mount Everts; a trip to Yancey's; paddling about Yellowstone Lake; camping out down at Two Ocean Pass; a ride into the Hoodoo country; an excursion down the Madison to Riverside — all these can be made from some one of the hotels as a rendezvous, and take my word for it you will be surprised at the results.

Make up a party of congenial spirits for vacation time in 1897, and go out to Yellowstone Park and see how much of its 3,344 square miles can be seen before you return. Spend the heated summer season at hotels where the temperature and altitude will allow genuine comfort and recreation.

There need be no fear of sickness; the skilled physicians that attend Uncle Sam's blue coats will also dispense physic to others that need it.

Let us as American citizens show to the world that we appreciate the heritage God has given us, and to that end utilize it as it should be utilized.

"Go, Make Money."

Othello.

And the Gold of that Land is Good.—Genesis 2: 12.

THE recent Presidential campaign, however satisfied or dissatisfied we may be individually at its political results, wrought much good from an educational standpoint. Not the least, perhaps, of its benefits is the fact that it brought the bulk of our people into a more intimate relation to one of our great national industries, and especially an important one of the entire West — the mining of the precious metals. Not, perhaps, that they know particularly more of the details, the *technique* of it, but the industry itself, the fact that it lies close to our actual life and prosperity both individually and collectively, has been brought home to us forcefully.

The history of mining in our country is almost coeval with its early settlement. I glean from Charles Howard Shinn's "Mining Camps" a few interesting facts. In 1622 the first attempt at mining seems to have been the opening of an iron mine at Falling Creek, near the James River, Virginia. In 1657 Gov. John Winthrop prospected in New England and in 1661 opened mines near Middletown, Conn., where the Governor "used to resort with his servant, and spend three weeks in roasting ores, and assaying metals, and casting gold rings." The first blast furnace in New England Colonies was built in Plymouth County, Massachusetts, in 1702, and copper mining received its first start in Simsbury, Conn., in 1709.

Gold mining was prosecuted in the South early in this century, a gold nugget weighing twenty-eight pounds being found. On the French Broad River placer mining was carried on.

Then followed the opening of mineral lands in Missouri, Arkansas, Iowa, Illinois, and the Lake Superior region.

Then came the most dramatic chapter in mining in the history of this country, or perhaps of any other. In 1848 came the discovery of gold in California and the glorious days of '49, when the country went crazy. Men braved death by the Indians and starvation in the mountains, in crossing the plains; they risked shipwreck and death to get around Cape

Horn. All they asked was to get to California and have a chance at the fabulous placers. In January, 1848, the first gold was found near Sutter's Mill. That year over $5,000,000 in gold dust were taken out. In 1849 came the great rush to the gold fields. Thirty-five thousand men went by sea and 42,000 by land in that year. Farms and ranches were deserted and sailors left their ships. In August, 1849, 400 ships lay idly at their anchors in San Francisco Bay. The sailors had deserted, swam ashore, and were off to the gold fields. The discovery of gold in California was an important epoch in our history. It brought home to the nation in a manner almost stunning, the fact that between the Western frontier and the waves of the Pacific, was an empire fraught with possibilities of which no one had dreamed. It made of us a gold-producing country, and to a degree, if the signs failed not, that was bound to give us a prouder standing among nations. Did the signs fail? The following table of the total production of gold and silver in the world, is taken from tables compiled by Soetbeer and the Director of the Mint:

Period.	Gold.	Silver.
1821–1830	$ 94,479,000	$ 191,444,000
1831–1840	134,841,000	247,930,000
1841–1850	**363,928,000**	**324,400,000**
1851–1860	**1,332,981,000**	**372,261,000**
1861–1870	1,263,015,000	507,174,000
1871–1880	1,150,814,000	918,578,000
1881–1890	1,059,892,000	1,298,820,000

A simple glance will show the impression made upon the world's output of precious metals by the Californian discoveries and the subsequent spread of mining in this country. It was not a great while before the army of placer miners in California naturally concluded that the placers they were scraping were but the output of the mountains themselves. The gold they obtained in the streams and gulches came from rocks or deposits elsewhere. Why not therefore search for the original source of the supply? Then began the hunt for ore ledges and veins which has spread over the entire West, until not a range, scarcely even a hill, that has not been more or less scraped, tunneled, or disemboweled by these assiduous individuals, leaving however to future generations as much and as good as they appropriated. Thus came into existence that unique, original, picturesque character to whom the West owes so much —

THE PROSPECTOR.

Do you know him? Have you ever seen him panoplied for his tussle with the mountains, as for years he has trudged over them, perhaps alone, perhaps in pairs or triplets, searching out the hidden spots where God has placed the treasures which all men seek? He is a character. Would that I could depict him as he really is. But, alas, I fear no pen can do that. There are so many of him that,

A TRAIN OF PROSPECTORS.

even with all the characteristics common to the genus, there is so much that is distinctly individual that it is a hard matter to describe him.

He is the advance guard, the skirmish line of the great army of miners. He goes where no one else goes — *until after he has been there.* He finds gold and silver where there is none, and fails to discover it when it is there. Strange indeed but true all the same. He is always hopeful, never gives up, is tireless, tough and hardened in brawn and muscle, ever looking forward to something better than he has yet found. Once a prospector always a prospector is almost literally true of all of them. His life is one of toil, hardship, hope, exaltation, disappointment, expectation, many aches and pains, and solitude for weeks and months at a stretch. He knows then but little of the society of his kind, but recoups himself somewhat in the winter months by the rest in the towns, which he has fairly earned. His life has a good deal of the X quantity in it. He gets many a hard knock and finds few soft places upon which to rest his tired bones. But he doesn't complain. He expects precisely what he finds, takes things as they come, and looks forward to a good time coming in the sweet by and by. He is indomitable, does any amount of hard work on liberal rations of bacon and bread, beans and coffee, with an occasional elk or deer, or a mess of trout to freshen his larder. He exiles himself from friends and family if he has one. With pick and shovel, blasting powder, frying-pan, coffee pot, blankets and "grub," he leads his pack horse or tramps along with pack on his back looking for *indications.* He drives a short tunnel here, digs a shaft there, gathers his specimens, and takes them to the assayer. If the assays "pan out" well he looks for a partner to furnish money to develop the claim, and sometimes as I have known, sells a hole in the mountain eighteen feet deep for $150,000.

It is the hope of such success that keeps up his spirits, makes his faith buoyant, and carries him over the mountains and through the cañons. But luck seldom falls in such large chunks. Too often he sows and the other fellow reaps.

And yet with it all he is happy and enjoys life. He makes fair wages as a general thing, has a life of independence and freedom of movement, grows to enjoy more or less his communings with nature, and all in all is pretty well satisfied with things as they are.

THE MINER.

The farmer tills the earth's surface bringing forth the fruits, grains, and vegetables necessary to man's sustenance. Another, an underground farmer, complementary to the other, is as important an agent in the world's progress and existence. The one toils in the fierce heat of the

noonday sun, the autumn winds, the wintry blasts, that his brother may have whereof to eat. The other, deep in the cold, gloomy caverns of earth, where night is night forever, toils as does his brother that the world also may live. By the dim, flaring light of the tallow dip, the smoky torch, or as now more frequently seen, the brighter ray of the incandescent lamp, he delves night and day for the precious metals so necessary to man's comfort and happiness. The one we call farmer, the other miner, indeed, but wherein, after all, is the real difference? One farms upon the outside of the rotund earth, where the chemistry of the air and soil crown his labors with success. The other, deep in the belly of the same earth, farms where the hidden alchemy of the Divine One has worked its perfect work. It requires no great stretch of imagination to classify them together — the one providing the staff of life, the other the wherewithal to procure it.

God bless the miner!

How great is mankind beholden to him.

The banker, as he counts his bags of wealth; the laborer, as he receives his hard-earned wage; the professional man, as he takes his fee for skillful service rendered; the bride, as she stands at the altar and glances at the golden circlet that adorns her finger, and the dominie, who receives, perchance, a double eagle for his part in that ceremony, all, all owe these toilers in the earth a vast debt.

God bless him, I say!

Rough, hard-handed, possessing faults, undoubtedly, as do all men, sometimes reckless, misguided, uncontrollable, the true miner has yet in him the virtues of a brave, manly man, does unobtrusively much good and deserves well of his fellows. What the manufacturing hand has done for New England, the miner has done for the Far West.

The history of mining in the Northwest begins with 1860. Long before that, however, gold had been washed from the gravels in more than one locality there.

It is stated that in 1851 gold was discovered in Southern Oregon. In 1852 it was first found, in what is now Montana, at Gold Creek. In the earliest years of this century the Indians made bullets from melted galena, on the shores of Kootenai—Koó-ten-ay'—Lake. Dr. G. M. Dawson, F. R. S., says that in 1851 gold was discovered on Queen Charlotte Islands, and in 1857 on the Thompson River, a tributary of the Fraser River. It was not until the early 60's that anything like actual and systematic efforts at mining began, particularly in the United States, save, perhaps, in one or two rather perfunctory instances.

The California gold wave reached its zenith in 1853. What more

natural than that the army of miners, with the decadence of the California fields, should search out virgin ground. This they did. In 1859 came the great Washoe wave, when the historic Comstock Lode and its bonanzas were uncovered. Eastward and northward the conquering legions swept. Slow but sure was their progress. The gulches were ravaged and the mountains rent.

The exodus of California became the genesis of Idaho and Montana.

In 1860-61 came the discovery of the Salmon and Clearwater River diggings in Idaho. The rush to this region was almost a repetition of that to California in 1849. Pierce City, Oro Fino, Florence, Elk City, Warrens, etc., were names as familiar as were Virginia City and Gold Hill, Nevada, or as Butte and Deadwood of later years. Millions of dollars in gold were taken out of this region.

In 1860-65 came the Montana excitement. Gold Creek was indeed the "Pioneer," followed by Alder Gulch, Last Chance Gulch, Marysville, Confederate Gulch, etc., as the more important camps. But there were any number of other gulches of nearly as much or equal importance. Virginia City, Bannack, Deer Lodge, Marysville, Nevada City, Helena were the familiar names of early Montana towns

From 1862 to 1867, inclusive, it is estimated that Montana furnished $74,000,000 of gold to the world.

One fact that will impress many as a strange coincidence may be noted here. From 1853 the yield of gold from California steadily declined. In 1860-61 the Nevada, Idaho, Montana, etc., fields were opened, and re-established and increased our output of precious metals.

From 1861 to 1865 the country was engaged in a great civil war that threatened its very life. When most needed these new gold discoveries were made and the vast amounts of gold dust and bullion thus turned into the channels of commerce served to repair the waste of treasure in the war and to sustain the credit of the country.

In the early days the method of mining was almost entirely that known as placer mining.

"Placers are superficial deposits of gold which occupy the beds of ancient rivers." The word placer is of Spanish origin, and means content, pleasure, satisfaction, or delight. Briefly, placer mining is the artificial washing out by water of the gravelly beds of streams or gulches. In this process the earth and rock materials are washed away, and the gold, which is of course in its free or natural state, is saved. Originally, this process was crude and clumsy, but experience soon improved the methods, until finally it developed into the hydraulic process, where with a mountain stream of strong head sent through a large iron nozzle, whole hills and mountain sides were sluiced away. As men gained experience, and

ideas were enlarged, they thus passed from the primary school of placer mining pure and simple, to the intermediate department of hydraulic mining, and then to the high school of ledge and vein mining. Placer mining and hydraulicking are still practiced in all parts of the West, and the aggregate of gold produced by these methods is millions of dollars annually. Ledge mining has however assumed such gigantic proportions and is so scientifically carried on, as to overshadow them to a great degree.

MONTANA.

It can probably be said with truth, that the entire mountain region of Montana is a mining area. While, naturally, the greatest present activity is in those sections near the railways, there are many yielding and promising fields in remote localities.

Helena is the site of an old and rich placer claim. The discovery of this placer was an interesting one :

Placer mining was the great industry of the country, and already extensive operations were carried on at various diggings, the chief of which were Gold Creek, Grasshopper Creek, and Alder Gulch. As these placers, however, were overrun with gold hunters, prospecting for new mines was constantly going on, and almost every day men left the settlements to seek for other deposits of the precious metal. On such an errand, John Cowan, one of the well-known early-day miners, started early in 1864 with a party of kindred spirits for the Kootenai country, in British Columbia, where it was known that gold fields existed. On account of trouble with the Indians he was forced to turn back toward the settlements. The party prospected on the return trip without finding anything in the way of "pay-dirt." Weary, disheartened, and almost despairing, the party, on July 21st, camped upon the present site of Helena for another trial with the pick, shovel and pan, Cowan remarking that this was their *last chance* for a discovery. The auriferous gravel "panned out" well, further prospecting showed the existence of plenty of "pay-dirt," and Cowan and party took out considerable gold. News of the discovery spread, and in a month's time people began to flock to Last Chance Gulch. The "camp" grew as only mining camps can grow, and in the following October it had assumed such metropolitan proportions that a meeting of the miners was called to give it a name. This meeting was held in the cabin of Geo. J. Woods, October 30, 1864, when the name, Helena, was given to the new town and a committee appointed to lay out streets and fix the size of town lots. Thus, in three months from the time gold was discovered in Last Chance, Helena was born, christened, and well started on the road to commercial importance.

HIGH SCHOOL BUILDING, HELENA, MONT.

Inasmuch as no accurate figures were kept in the early days, it is impossible to give precise information as to the total yields of these old placer claims. Estimates regarding Last Chance Gulch range from

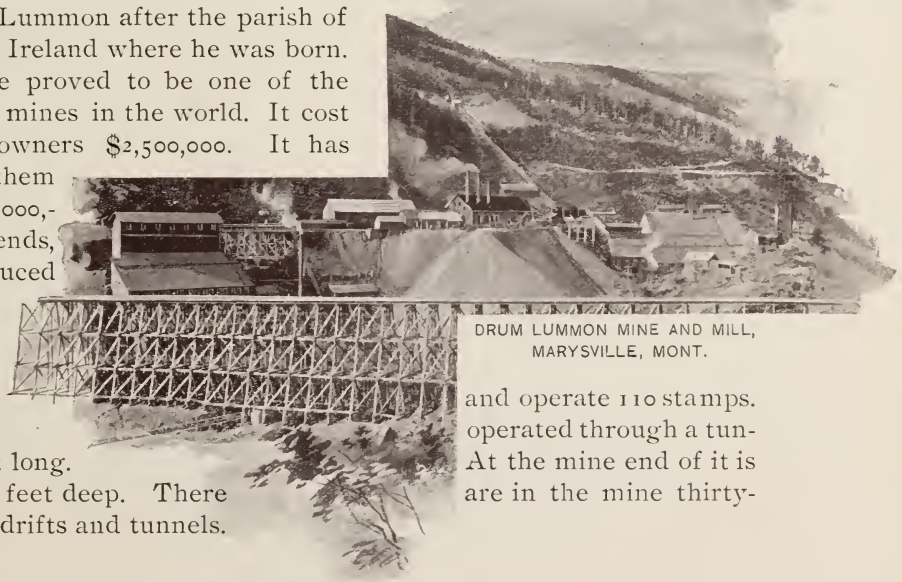
$20,000,000 to $50,000,000, with probabilities favoring $40,000,000 as being about the correct amount. A few miners are still working there taking out thousands of dollars yearly.

Helena has tributary to it a greater mineral-bearing zone than any other Montana city. West of it is the Phillipsburg district. This has been one of the richest silver districts in the world, the Granite Mountain, Bi-metallic, Hope, etc., being the prominent mines. The Granite Mountain has paid more than $12,000,000 in dividends. Since the silver depression there has been a marked development in gold properties in this district, greatly to the surprise of most people.

FURNACE ROOM, EAST HELENA SMELTER, HELENA, MONT.

North of Helena and in the same county—Lewis and Clarke, the largest gold-producing county in Montana—is Marysville. This sprightly town, only twenty-one miles from Helena, is located near the head of Silver Creek. Before Last Chance Gulch was opened, this creek had attracted notice because of the gold found in its gravels. It was not until 1876, that Thomas Cruse, who had been working in the Silver Creek placers for nine years, stumbled upon the valuable ledge to which he gave the name Drum Lummon after the parish of that name in Ireland where he was born.

This mine proved to be one of the richest gold mines in the world. It cost its present owners $2,500,000. It has returned to them more than $3,000,000 in dividends, and has produced more than $10,000,000. They own their mills and operate 110 stamps. The mine is operated through a tunnel 1,200 feet long. At the mine end of it is a shaft 1,600 feet deep. There are in the mine thirty-five miles of drifts and tunnels.



DRUM LUMMON MINE AND MILL, MARYSVILLE, MONT.

COURT HOUSE, BUTTE, MONT.

The greatest of the great, "the chiefest among ten thousand." Such is Butte, the city on a hill honeycombed with drifts and tunnels. Butte first became known to fame in 1864. As in the case of the other camps the first workings were placer diggings. From 1864–1867 the vicinity of Butte and Silver Bow was quite prosperous. In the latter year many of the placers began to "peter" out and a hegira to other places resulted. From 1868–1875 Butte was in the dumps.

"To William L. Farlin and to him alone does Butte to-day owe her prosperity." In former years Farlin had noted some fabulously rich ore taken from a prospect hole on a Butte ledge. Without means to develop a mine he went to work in the placers and bided his time. A United States law compelled all owners of quartz mines to perform a certain amount of labor upon their claims prior to January, 1875, or they became forfeited to the United States and subject to relocation. Farlin returned to Butte. The work on the particular prospect was not performed by the owners. The night of December 31, 1874, Farlin was ready. To paraphrase Longfellow,

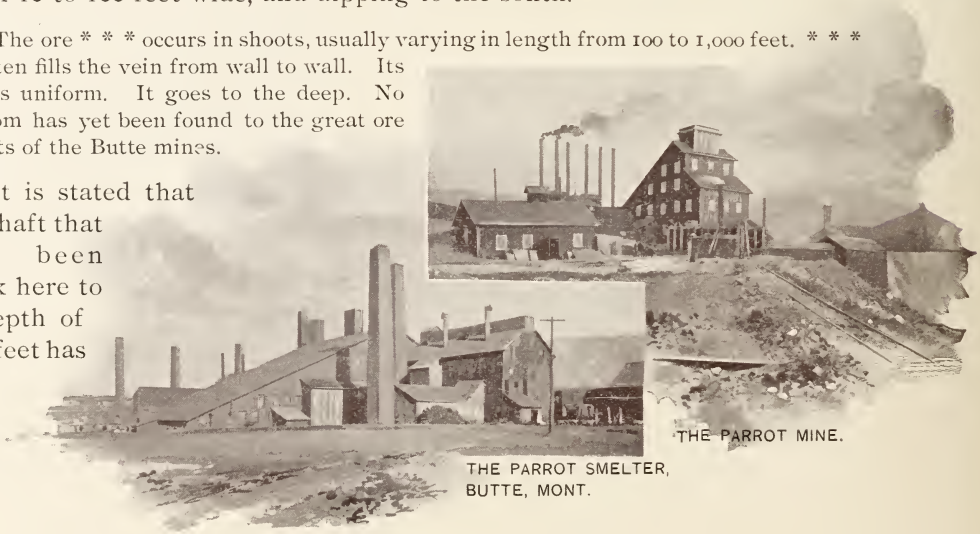
> "He stood on the lode at midnight,
> All alone in that silent hour,"

and as soon as January 1, 1875 was born he relocated the ledge, christened it Travona, went to work to develop it, and a new era and time of prosperity had dawned for Butte. So runs the chronicle.

The mineral-bearing rock at Butte is composed of a network of veins from 10 to 100 feet wide, and dipping to the south.

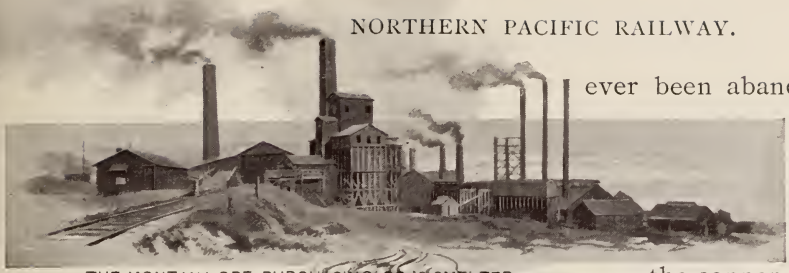
> The ore * * * occurs in shoots, usually varying in length from 100 to 1,000 feet. * * * It often fills the vein from wall to wall. Its dip is uniform. It goes to the deep. No bottom has yet been found to the great ore shoots of the Butte mines.

It is stated that no shaft that has been sunk here to a depth of 300 feet has



THE PARROT MINE.

THE PARROT SMELTER, BUTTE, MONT.

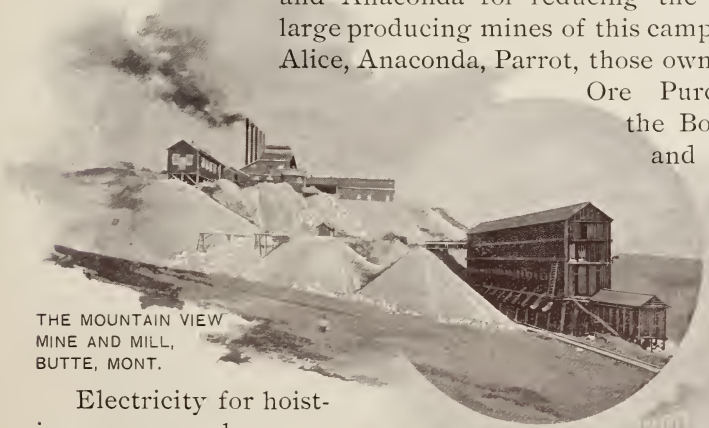


THE MONTANA ORE PURCHASING CO.'S SMELTER, BUTTE, MONT.

ever been abandoned, or that a mine worked to that depth has ever been exhausted. The great value of the copper deposits was not at first understood, although as far back as 1866 the Ramsdell-Parrot mine, a copper mine, was being worked. Butte now produces more copper than any district in the world. Butte's total output of gold, silver, and copper from 1880 to 1896, inclusive, is reputed to have been $288,198,600.

The methods of mining at Butte are thoroughly scientific. The mines are worked almost invariably through vertical shafts instead of adits. There are now many of these shafts from 1,000 to 1,500 feet deep. A table of shaft depths of 104 mines ranging from 200 to 1,500 feet gives a total of 60,000 feet, or 11⅓ miles, in depth. The shafts are one, two, and three compartments in size. All medium-sized mines use at least two, and the largest mines three compartments. In a three-compartment shaft two are used for the ore cages — one ascending the other descending — and the third for the pump shaft. These shafts are well timbered, all timbering being specially framed on the surface of the ground.

In connection with the mines there are large mills — concentrators, smelters, stamp mills, chlorination and amalgamation mills, etc. — at Butte and Anaconda for reducing the ores. Among the large producing mines of this camp are the Lexington, Alice, Anaconda, Parrot, those owned by the Montana Ore Purchasing Company, the Boston and Montana and Butte and Boston Companies, the Butte Reduction Works, etc.



THE MOUNTAIN VIEW MINE AND MILL, BUTTE, MONT.

Electricity for hoisting purposes has been applied in Butte with complete success.

THE MONTANA CONSOLIDATED MILL AND MINE, BUTTE, MONT.

South and east of Butte are many promising camps. The towns of Pony, Norris, Sappington, Whitehall, Twin Bridges, etc., are all centers of mining activity. At Virginia City is the noteworthy Alder Gulch, said to have yielded, probably, $100,000,000.

North of Butte, Clancy, Corbin, Wickes, Basin, Boulder, and Elkhorn are the more prominent camps. Most of these places have rail communication with Butte or Helena via the Northern Pacific, including, also, Rimini, southwest from Helena. Montana's total output of minerals for 1896, at present prices — including $4,500,000 of gold — was $41,960,000.

At Anaconda, a few miles west of Butte on the Montana Union Railway, are the largest smelting works in the world. These are owned by the Anaconda Company, of Butte and Anaconda, and represent an investment of more than $9,000,000. There are employed in the works about 3,000 men, and the monthly pay-roll aggregates $250,000.

"The copper in the water of the Anaconda mines pays bigger dividends than many of the great mining companies of the West. The copper precipitating business in Butte netted $60,000 in two years from the water of the Anaconda and St. Lawrence. It is estimated that the company will net about $15,000 per month from precipitating the copper in the water in the group of mines owned by the company. Two per cent water will give greater profits than a mine carrying 20 per cent copper."

IDAHO.

In almost the extreme northern corner of Idaho are the Cœur d'Aléne —Ker-dah-lané—Mountains. The ore-bearing properties of this range are well known. The earliest history of this region and the unique manner of its discovery, prepared for me by Mr. Adam Aulbach, of Murray, Idaho, an old settler and one who possesses personal knowledge of the subject, I append hereto :

"The discovery of gold in 1882 by A. J. Prichard, and the subsequent excitement and rush to the Cœur d'Alénes in the fall and winter of 1883-'84 must be fresh in the minds of most people of the present day. Like all mining excitements since the discovery of gold in California in '49, the reaction came in the Cœur d'Alénes. The fever spent itself quickly in the new El Dorado, for the conditions were not favorable for the sudden accumulation of riches. With characteristic shrewdness the prospectors and experienced miners saw that the Cœur d'Alénes would be a camp of slow development, and many sought more favorable fields. The region was densely covered with timber in the first place, and in the second place the bed rock, the miners' paradise, was far beneath the surface. Gradually, however, the unfavorable conditions were overcome by steady toil and the investment of capital, and although thirteen years have been devoted to its exploitation, the gold belt of the Cœur d'Alenes, with its annual output of about $300,000 of yellow metal, is only partially prospected and known, and it affords better opportunities at the present day for the investment of capital than it has since the day of discovery. Added to the placer mining, the auriferous veins have received

attention, and in and about Murray, within a radius of five miles, there are eleven stamp mills pounding gold from quartz. This is an encouraging showing for a district only thirteen years old, twenty miles from the nearest point on the Northern Pacific Railway.

But, while the gold mines of the Cœur d'Alénes have been somewhat slow of development, the silver-lead belt has forged ahead with giant strides, and the country at large recognizes the fact that the argentiferous district is one of the richest in the world. The great depression in the prices of lead and silver has in a great measure been offset by scientific methods of reduction and increased output. Transportation, too, has been greatly facilitated by railroads, which run their cars directly to the mills, and haul the ores and concentrates both east and west, as may be desired. The output of the Cœur d'Alénes for 1896 will approximate $7,000,000 of gold, silver, and lead.

1. BIRD'S-EYE VIEW, WALLACE, IDAHO.
2. BIRD'S-EYE VIEW, WARDNER, IDAHO.
3. THE ONLY STREET IN GEM, IDAHO.

The *actual* discovery of the silver-lead mines was made in 1879, by Tom Ervin, the *practical* discovery in 1885, and the latter created a new interest in the Cœur d'Alénes, and one which has never abated. The largest of the present producing mines, the Bunker Hill and Sullivan, located at Wardner, were found in a novel way. In the fall of '85, an old gold prospector, Noah S. Kellogg, left Murray with a donkey, vulgarly called a jackass, under a grub-stake. He crossed two ranges of mountains, and camped at the mouth of Milo Gulch, on the south fork of the Cœur d'Aléne

River. During the night the donkey strayed up the gulch about a mile. In the morning old man Kellogg looked for his faithful beast of burden, and found him on the hillside on the ground now known as the Bunker Hill Mine. The hill is steep, and as Kellogg climbed up the hill after his donkey, he observed that the feet of the little animal had loosened some of the shining lead-silver ore from the croppings of a ledge. The old man did not realize his good fortune at the time, but he picked up some of the ore, all he could conveniently carry, and returned with the donkey to his camp. Several days afterward, Kellogg and his donkey returned to Murray, where his grub-stakers chided him for bringing silver-lead ore; they wanted gold mines. Kellogg, undecided what to do, told some friends of his discovery and showed them the ore. One of these had been a lead-silver miner, and he quickly recognized the importance of the discovery. It was given out to a few, and the same night hasty preparations were made for an early start next morning. The following evening and the next day the mountains about the present town of Wardner were crowded with prospectors locating claims. One thrifty prospector of Black Hills fame located seventeen claims before noon of the second day. The claims were supposed to be 600 feet wide and 1,500 feet long. Kellogg died in an eastern insane asylum a few years afterward. The Bunker Hill and Sullivan mines were finally sold for $500,000, and they are probably worth $2,500,000 at the present time. The plant of the company is the largest of the kind in the United States. The donkey, to whom the discovery of the mines was due, was placed on a farm near Portland, Oregon.

On one of the branches of the Cœur d'Aléne River lies the sprightly town of Wallace.

STANDARD CONCENTRATOR, GEM, IDAHO.

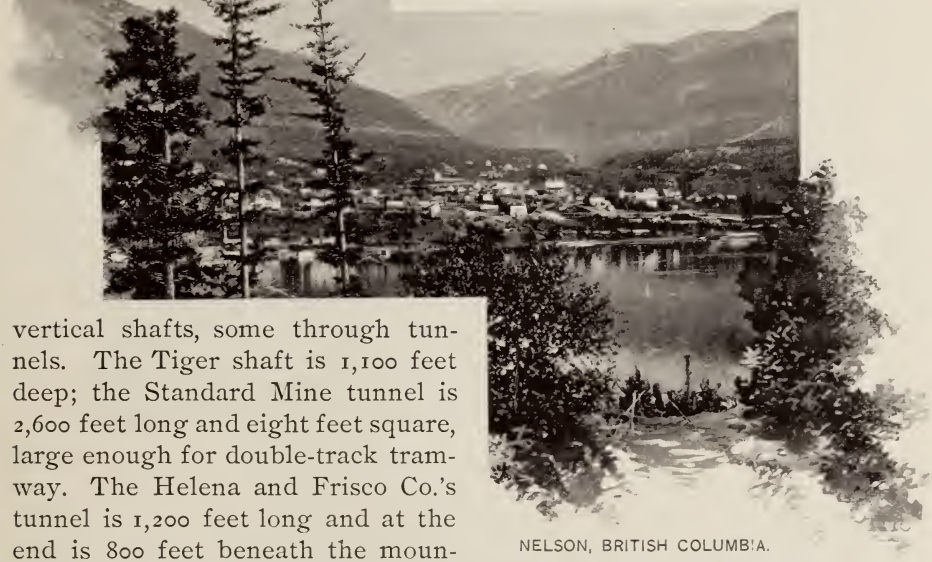
MORNING MILL, MULLAN, IDAHO.

It is a walled town, mountain-walled, and almost fancifully located. Up the gulch from Wallace is Mullan and the group of mines thereabout; down the gulch is Wardner and another group, while up Cañon Creek Gulch, a side gulch running north from Wallace, are Gem and Burke, well known mining towns. These places are all reached by the Northern Pacific. Of prominent mines, aside from the Bunker Hill and Sullivan already mentioned, there are the Tiger, Poorman, Mammoth, Standard, Helena and Frisco — recently

sold for $2,225,000 — and Gem, of Cañon Creek Gulch; the Stemwinder, and Last Chance, near Wardner, and the Morning, and Gold Hunter, near Mullan. The total output of these mines for 1896 was 87,640 tons of ore and concentrates, and this too, with silver mining greatly depressed.

From Wallace to Burke the cañon is almost a continuous town. The distance is seven miles. The gulch is narrow and within its confines, creek, road or street, railway track, houses and mills must be provided for. The result is that the creek is confined as closely as possible, and railway track and street are for much of the distance synonymous terms.

Some of the mines operate through vertical shafts, some through tunnels. The Tiger shaft is 1,100 feet deep; the Standard Mine tunnel is 2,600 feet long and eight feet square, large enough for double-track tramway. The Helena and Frisco Co.'s tunnel is 1,200 feet long and at the end is 800 feet beneath the mountain's top. A vertical shaft 400 feet deep drops down from a large station at that point.



NELSON, BRITISH COLUMBIA.

Electricity, compressed air, and steam power all are used for power and lighting purposes.

The water supply is gathered from the mountains, brought to the head of the cañon in flumes, and is used over and over as it flows down the creek after each successive use.

Church and school privileges are not forgotten. Wallace has one of the finest brick school buildings in the West, and many cozy, tasteful residences. Its hotel accommodations are also good.

The old placer mining camps of Eastern Idaho, Pierce City, Mount Idaho, Elk City, Florence, Warrens, etc., have within recent years taken on a new lease of life. With improved mining methods, deposits that previously would not repay the labor and expense of working them, now give good returns, and, in addition, new workings have been uncovered.

WASHINGTON AND BRITISH COLUMBIA.

North of Spokane lies a region which of late years has riveted the attention of mining men from all over the world. It may be said to lie along the 49th parallel of latitude or International Boundary, and includes territory both in the United States and British Columbia. South of the boundary this

VIEW FROM IDAHO BASIN — SLOCAN REGION.

territory extends from and including Northern Idaho, west to the summit of the Cascades, embracing the country about the Okanogan River and Lake Chelan. An important part of it is known as the "Reservation," it being a portion of the reservation of the Colville Indians, which was opened to mineral location in 1896. Now that this privilege exists, and that transportation facilities are fairly satisfactory, Northeastern Washington should take giant strides forward in mining within the next decade. Colville, Chewelah, Marcus, Myer's Falls, Bossburg, and Northport, all on the Spokane Falls & Northern Railway, are important centers for this region.

Events have so shaped themselves that the country north of the boundary has developed more rapidly than that south of it. And this too, to an amazing degree and within a few years.

If Americans must regret the fact that this land of gold and silver is not of their own country, they are consoled by the reflection that its exploitation has been by American capital and American miners, almost wholly. Men who served their apprenticeships in the mines of the Comstock Lode and Butte, backed by capital from Portland, Seattle, Tacoma, Spokane, Butte, Helena, and points even as far east as Minneapolis, St. Paul, and Chicago, are showing their Canadian cousins how to mine. The Canadians are "catching on"; so are the London, Eng., capitalists.

The first gold discovery in British Columbia is variously stated to have been in 1848 and 1851. Doctor Dawson, director of the Canadian Geological Survey, gives the latter date as the correct one. The discoverer is said to have been an Indian woman. At Fort Colville, Washington, a Hudson Bay employe found placer gold in 1855, and to this, the succeeding era of gold discoveries in British Columbia is said to be due. In 1863–4, rich placers were found on Wild Horse Creek and vicinity near Fort Steele, in what is known as East Kootenai District. The influx of prospectors and miners was to a great extent from Washington, and supplies and provisions were taken in from there. To prevent this and hold all trade within their own territory, the Canadian government constructed the Dewdney Trail just north of the boundary line. This, with its connection westward, ran from the Fraser River to Fort Shepherd and east to Kootenai River just below Kootenai Lake, thence up the Moyie River to Fort Steele.

INDIANS ON KOOTENAI LAKE.

MINER'S CABIN.

INDIAN CAMP ON KOOTENAI LAKE.

The route for this trail was carefully explored by Mr. Dewdney, now Lieutenant-Governor of British Columbia, in 1864–65, and was cut, throughout, to a

width of four feet. The trail followed down Trail Creek to the Columbia River, thus passing by the present site of Rossland. The first location in Trail Division was the Lily May. It is generally stated to have been located in the early 60's, and as it is near the Dewdney Trail, the inference is that it was about the time the trail was made. An old hole five feet deep, on the present Le Roi ground, and an old tunnel but recently discovered on Lookout Mountain, indicate the presence of early prospectors.

The region drained by the Kettle River and its tributaries, and popularly known as the Boundary Creek Country, lies in Yale District. This section is connected by daily stage — except Sunday — with Marcus, on the Spokane Falls & Northern Railway, forty-five miles distant from Grand Forks. There are many camps extending over a wide area. The character of the ores varies, free milling gold, galena, gold-copper, gold-silver-copper, etc., all being present. It seems to be merely a question of railway facilities when the country will expand into a wide and rich mining field. The principal centers of this section are Grand Forks, Cascade City, Boundary Falls, Carson, Anaconda, Midway, and Rock Creek.

Most of the country east of Kootenai Lake and west of the headwaters of Kootenai River is within the East Kootenai Division of Kootenai District. This includes the Wild Horse Creek and Fort Steele region. There is much activity manifested and the prospects for perhaps a more or less remote future are good. Lack of transportation facilities hampers it now.

The most noted and richest part of the country under consideration is situated in the West Kootenai Division of Kootenai District. This includes the Rossland or Trail Creek, Salmon River, Nelson or Toad Mountain, Ainsworth, Hendryx, Kaslo, Sandon or Slocan, Cariboo Creek, Deer Park, etc., subdivisions.

The character of the ores found has a wide range. The Trail or Rossland ores are gold with silver and copper. The Slocan ores are principally galena—silver-lead—as are also the ores around Kootenai Lake, near Ainsworth and Hendryx; the Nelson ores are mostly silver-copper, but on the affluent creeks of the Kootenai River, below Nelson, many gold properties are being found; the Salmon River ores are for the most part gold, both placer and ledge; the Deer Park ores are said to be similar to the Trail ores; on Cariboo Creek the ores carrying gold appear to be emphasized, and about Slocan Lake, in what has been supposed to be a heavily silver-lead region, some gold ores are found.

It now seems certain that the Rossland mineral belt is a very extensive one extending westward, to the Boundary Creek region, and also eastward to the Columbia River. That this country bids fair to be thoroughly

examined is shown by the statement that more than 65,000 miners' licenses were granted in the year 1896, in British Columbia. It should be stated that every miner must pay $5.00 yearly for a miner's license.

The earliest attempts at mining in West Kootenai are said to date from 1882, at Ainsworth. The first ore shipped was from the Krao Mine and was packed on men's shoulders a distance of three miles, and from 1,500 feet above the lake. The best known mine, the Skyline, was discovered in 1889, and is 3,900 feet above Kootenai Lake and 5,600 feet above the sea. The Blue Bell Mine at Hendryx, on the east shore of Kootenai Lake, was discovered it is said, as early as 1825 by trappers. It carries an enormous quantity of low-grade galena, and when the assays established this fact no further attention was paid to it. Early in the '80's it was again located, by a man who shot another for jumping his claim and who was himself subsequently executed for it. The ledge of the Blue Bell runs under the lake, but the waters do not percolate it.

LE ROI MINE AND ORE DUMP

LILY MAY MINE.

The discovery of the Nelson or Toad Mountain region is stated by Doctor Dawson to have been in this wise :

In 1886, some prospectors, still in search of placer gold only, happened to camp in a high mountainous region which has since become familiarly known as Toad Mountain, and one of them, in seeking for lost horses, stumbled on an outcrop of ore, of which he brought back a specimen. This specimen was afterward submitted to assay, and the results were such that the prospectors returned and staked out claims on their discovery. The ore, in fact, proved to contain something like $300 to the ton in silver, with a large percentage of copper and a little gold.

Other versions of the story with minor variations, are given. This was the Silver King Mine, and to the discovery of it and the Skyline may be traced the rush to this country.

Forty-nine Creek, below Nelson, indicates in its name the time when some lone prospector "found colors" there.

The Slocan region was made known in 1891–92.

The genesis of the Rossland or Trail camp is worthy of note.

In July, 1890, Joe Bourjoius and his partner Joe Morris, located five mines on Red Mountain. Bourjoius staked the Centre Star and War Eagle, Morris the Idaho and Virginia, and together they staked the Le Roi. They then went to Nelson, the place of record, where E. S. Topping was recorder. The two men gave Topping the Le Roi claim, he in return paying the fees for recording all the claims. Topping gave the name Le Roi — The King — to his claim, in honor of the two Frenchmen.

It is said that the original locators sold their claims for several thousand dollars each, and, like sensible men, carefully invested the money. Bourjoius went to Canada, and Morris settled on a ranch near Spokane. Topping finally sold the Le Roi to a small syndicate, who have developed it into a great mine. It has already paid in dividends $325,000, and the War Eagle, another of the five claims, has returned to its purchasers $187,000 in dividends.

Once it really became known what manner of country this was, the population rapidly increased. The elevation of Rossland is between 3,500 and 4,000 feet above the sea. The town was located by Ross Thompson (hence Rossland) in 1892, surveyed in 1893, and lots placed on the market in 1894. In January, 1895, there were but 300 or 400 inhabitants; now—January, 1897—there are probably 5,000. The town is in the midst of mountains and the site is unusually good for such an one.

The Kootenai region is almost redundant in fine scenery. It is very mountainous, with few valleys of any consequence. Doctor Dawson, describing the mountain systems here, says:

> The Rocky Mountain Range proper is the furthest inland. * * * The next mountain system, to the southwest of the Rocky Mountains, is referred to under the general name of the Gold Range, though really a complex and somewhat irregular mountainous belt, which includes several more or less distinct and partly over-lapping ranges. The Purcell, Selkirk, and Columbia ranges constitute its southern part. * * * West Kootenay comprises the southern portion of the Selkirk and Columbia ranges. * * The mountains to the west of the Arrow Lakes may be described as belonging to the Columbia Range.
>
> The Trail Creek Camp lies on the eastern slope of the southern extremity of the Columbia Range, which gradually merges into plateau land south of the International Boundary.

The Purcell Range is on the east side of Kootenai Lake, the Selkirks between the lake and the Columbia River and Arrow Lakes. The mountains range, on an average, from 8,000 to 9,000 feet high, with some peaks rising still higher. They are densely timbered, very rugged, and the many mountain streams, particularly of the Selkirks, tumble down narrow, steep channels, amid the wildest of scenery, including large glaciers far back in the range.

Within a short time transportation facilities, so important an adjunct to mining expansion, have been greatly

LOOKING UP KOOTENAI LAKE FROM NELSON, B. C.

multiplied. The Spokane Falls & Northern Railway extends from Spokane to Nelson. At Northport, just south of the boundary, a branch line crosses the Columbia and connects Rossland with the main line. A line of good river steamers connects Northport with important Columbia River and Arrow Lake points. The International Navigation & Trading Company Limited line steamers connect Nelson and the railroad with all Kootenai Lake points. The Columbia & Western Railway has a narrow-gauge line between Trail and Rossland; a standard-gauge road extends down the Kootenai River from Nelson to Robson; another narrow-gauge line connects Kaslo, on Kootenai Lake, with Sandon and Cody, in the heart of the Slocan region; and a standard-gauge road extends from Sandon to Nakusp and Arrowhead. In this scheme the Spokane Falls & Northern is an arm, with the other lines like fingers radiating from it. Its connec-

STEAMER KOKANEE, KOOTENAI LAKE.

tion at Spokane with the Northern Pacific affords the most direct and shortest route into the Kootenai from Pacific Coast and also from Eastern points.

Winter, instead of being a drawback, is an advantage to many of the mines in the slower stages of exploitation. The process by which this is carried on is called

RAWHIDING.

This is another of man's many inventions, a case of mind triumphing over natural obstacles. Winter and deep snow are the rawhiders' opportunity. The essentials of a rawhide outfit are snow, a mule or horse, a bull's hide used with the hair on the outside, a declivity down the mountain, and a grooved slide or gutter in the snow. The deeper the snow the better. Into the neck of the hide a block of wood eighteen inches long is firmly fixed. The sides and tail end are punctured with small holes, and the ore, in sacks, is placed in the hide, and the sides and tail end are drawn tightly together with thongs. Each hide will contain about a ton of ore, and several of these are strung together and constitute an outfit. The trail or grooved passageway is carefully selected, and, after it is well worn, which it usually is after a trip or two, mishaps seldom occur.

The mule is unshod, in order that when accidents take place he may not cut himself or the driver.

When ready, the mule is hitched to the front of the rawhide and a start is made. All goes well until a sharper declivity is reached, when chains are wrapped around the rawhide to serve as brakes. Then the fun begins. Again starting, the rawhide soon overtakes the mule, doubles his hind legs under him, and he sits down perforce upon the front of the rawhide, with as much equanimity and grace as a mule naturally can.

The experienced mule understands that he is expected to steer the outfit safely down the hill. He braces his front legs against the hard snow, preserving his equilibrium as best he can, and down, down, down they slide. All goes well enough usually, unless a brake chain snaps or works loose. If that happens, there is apt to be a miscellaneous mixture of mule, ore, snow, and rawhide.

The good rawhide mule, like a good pack mule in a bad plight, is in a way a philosopher, and manages to disentangle himself, none the worse for wear, and the journey is resumed.

This method is a great boon to miners in a mountainous region, where roads are few and useless in winter and the snow lies fifteen or twenty feet deep. In this way the winters are not dreaded, nor is the time lost. The mules soon become proficient steersmules. Where

the route is at all favorable, the process is safe, expeditious, and cheap, and a mule will handle well as many rawhides as he can guide. One man will usually superintend from three to five mules and outfits.

Of noteworthy properties in these various localities some have already been mentioned. In the Slocan section the Slocan Star, the most prominent mine, has paid $300,000 in dividends; the Alamo, Noble Five, Wonderful, Cumberland, and Idaho have also paid large dividends. The interest of one man in the Payne Mine was recently sold for $125,000. The Silver King Mine, near Nelson, cost its present owners more than $1,000,000. The policy until recently regarding this mine has been to develop it rather than to ship ore.

There is a smelter at Pilot Bay on Kootenai Lake, another at Nelson, and a very large one at Trail, and each smelter is increasing its capacity. Most of the Kootenai ores are smelted in the district itself.

In 1896, there were more than 67,000 tons of ore treated in Kootenai smelters, and nearly 26,000 tons exported to outside smelters. The Kootenai smelters produced 6,200 tons of *matte* and bullion.

For the year ending December 31, 1896, exports of Kootenai ore were valued as follows:

Gold	$ 903,079
Copper	267,582
Silver	1,420,435
Lead	171,726
Total	$2,762,822

The output of these metals for 1896 for British Columbia is supposed to exceed $5,500,000.

The respect shown for law and order in these mining camps across the line is simply astonishing to one from the States who is familiar with camps there. It comes simply from the fact that *laws are enforced*—law breakers are *heavily punished. Ergo*, being *taught* to respect the laws and morality, they *do* pay deference to them. The men are, most of them, from American mining camps, but their behavior is entirely different from what it is in United States camps. Very little expense attends the enforcement of law here. In Rossland, one man and a deputy attend to it, and the chief has also other official duties to perform.

Churches and schools, even in the smaller places keep pace with the growth of the latter.

Living is not unusually high for such localities and is constantly being cheapened. The climate is an equable one, and elevations above sea

not excessive. Kootenai Lake is but 1,800 feet, and Upper Arrow Lake 1,400 feet above sea level. Snow line in the mountains is about 6,000 feet above sea level.

Mail, telegraph, and telephone communication between the various places, and with Spokane is satisfactory. Good physicians are found, the hotels are fairly good, and all these accessories of progressive communities are constantly being improved.

Mountains Four

"To fill the thirst of the human heart for the beauty of God's working,—to startle its lethargy with the deep and pure agitation of astonishment,—are their missions. They are as a great and noble architecture; first giving shelter, comfort, and rest; and covered also with mighty sculpture and painted legend."—Ruskin, "Modern Painters."

THE great mountains of the Northwestern Pacific Coast are its glory. They *are* mountains. No one can look on them unmoved.

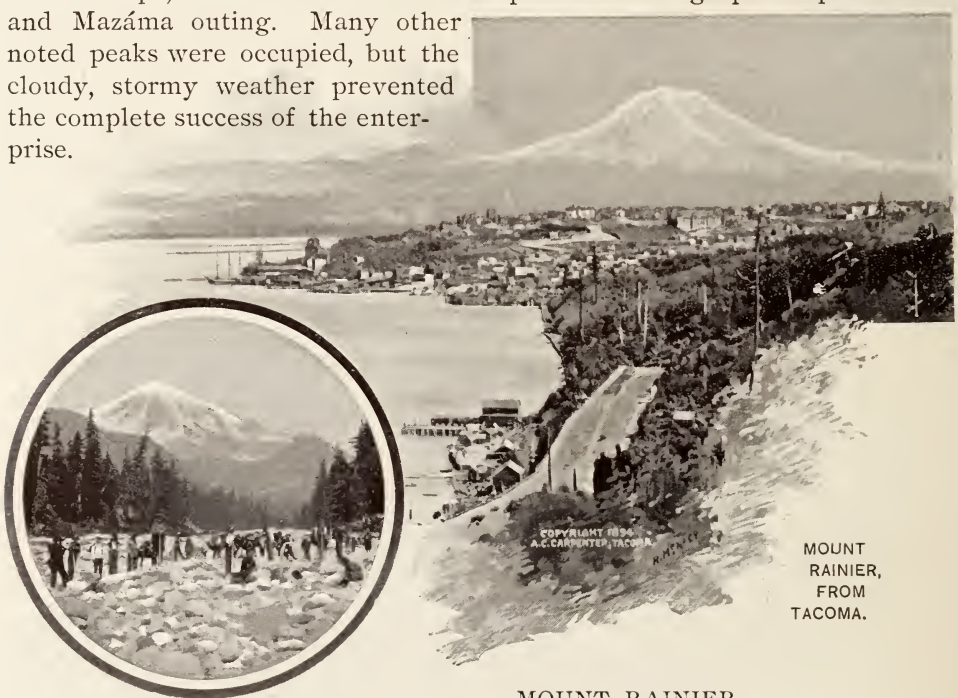
MOUNT ADAMS.

The traveler on the Northern Pacific can see, while traversing the Yakima Valley, a vast mountain to the west. It is a magnificently arched dome, perfectly clear and white, apart from any other that would dwarf it. It is Mount Adams, 12,250 feet high, named presumably, after one of the Presidents Adams. I have discovered an interesting historical tangle regarding the name of this mountain. As a matter of fact the question as to who named it and for whom it was named, and when, is gloriously obscure. Histori-

MOUNT ADAMS.

ans have dodged the matter with great ability. Adams has always seemed to me peculiarly the symbol of strength and majesty, even more so than Mount Rainier, or Mount Hood. The Indians call it "Pah-to," a high, sloping mountain. Next to Mount Rainier—Rayneer'—it is the highest mountain of the Cascades. Its height has until recently been understated, being given at 9,570 feet. The mountain has four summits, although as seen from a distance not more than three of these can be discerned.

As with nearly all the high Cascades, there is one central, predominant dome peak of unsullied whiteness. The basaltic mass is generally covered with glaciers, which once reached far below their present limits. Glacial shavings, sand, and scratches are found five miles below the snow line, so Prof. W. D. Lyman states. The northern and eastern sides of the mountain are very precipitous, but the peak is easily climbed on the southern side. In July, 1895, the Mazámas, a mountaineering club of the Pacific Slope, used Adams as the central point in a heliographic expedition and Mazáma outing. Many other noted peaks were occupied, but the cloudy, stormy weather prevented the complete success of the enterprise.



MOUNT RAINIER, FROM TACOMA.

SEATTLE CHOIR BOYS CROSSING NESQUALLY RIVER, ON WAY TO CLIMB MOUNT RAINIER.

MOUNT RAINIER.

Mount Rainier is a relic—one of hundreds—of Vancouver. In the vicinity of Port Townsend he first saw Rainier.

Writing of the whole range he makes this reference to it:

> And a very remarkable, high, round mountain, covered with snow, apparently at the southern extremity of the distant range of snowy mountains before noticed, bore S. 45 E.

When later he saw it again, after recording the bearing of Mount Baker, he added:

> The round snowy mountain, now forming its southern extremity, and which, after my friend Rear-Admiral Rainier, I distinguished by the name of Mount Rainier, etc.

The Indian name for this peak, the finest within the United States, possibly excluding Alaska, is Ta-hó-ma. There are other Indian forms of the word, varying somewhat from this, depending upon the tribe. The two meanings given for the word are "nourishing breast," from its resemblance to the female breast, and "snow-covered mountain." Judge Wickersham, of the Tacoma Academy of Science, after an exhaustive research, gives preference to the second meaning. As between these names, Rainier and Tahoma or Tacoma, the United States Board on Geographic Names, a board appointed to decide all such questions for the Government, decided upon Rainier as the name to be used on official maps.

Rainier is the highest of the Cascade peaks, being, according to the latest determination, that of the United States Geological Survey, 14,532 feet above sea level. What this means may be imagined when it is stated that the mountain, as visible from the Puget Sound region, is seen *from* the sea level itself. The first view of this august, splendid peak almost staggers one. It is so idealic that it is next to impossible to believe it other than a dream or vision. It is not unlike Adams in general contour, but is much nearer a conical shape. It is completely enameled with snow and is the center of a profound system of glaciers, some of them four or five miles in length. The northern side is very precipitous and has never been scaled. The eastern, western, and southern sides have been climbed many times. The ascent is long but not specially dangerous. In the summer of 1894 the writer, for the Northern Pacific, organized a party and climbed the mountain, spending an hour and a half *upon the highest peak.* There are two large craters there, nearly filled with ice and snow. The highest point is a beautiful snow and ice dome between the craters. Steam issues from the craters constantly, and when chilled we threw ourselves down on the warm decomposed volcanic ash where the ice was melted away, and became thoroughly warmed.

Many tourists and Pacific Coast people climb the mountain each year. A good road extends from Tacoma to Longmire's Springs at the base of the peak on the south side. From there an easy trail ascends the Nes-

qually and Paradise rivers to Paradise Park, where a tent hotel is maintained during the summer.

As the Northern Pacific train runs south from Tacoma, Mount Rainier is in sight for many miles. Near Yelm, its three summits can be seen.

MOUNT ST. HELENS.

Not long after Rainier is lost to sight another mighty mass of snow, terminating in a sharp point, appears. This is Mount St. Helens, 9,750 feet high and called by the aborigines, "Lah-me-lat'-cla"—fire mountain. Another Indian name is "Seuq." It is also an extinct volcano, and was named by Vancouver in 1792 as per the following:

The clearness of the atmosphere enabled us to see the high, round, snowy mountains, noticed when in the southern parts of Admiralty Inlet, to the southward of Mount

MOUNT ST. HELENS, FROM PORTLAND.

Rainier, * * * and, like Mount Rainier seemed covered with perpetual snow, as low down as the intervening country permitted it to be seen. This I have distinguished by the name of Mount St. Helens, in honor of his Britannic Majesty's Ambassador at the Court of Madrid.

St. Helens has been an active volcano more recently, perhaps, than any of the other northwestern mountains, unless possibly Mount Baker. It seems to have been in eruption many times between 1831–1850. Like all these peaks, it is not difficult of ascent on the south side. It is an intensely interesting peak to explore. Volcanic bombs and large quantities of ashes and cinders are found. In the first half of this century, St. Helens seems to have been the most frequently mentioned mountain of the Cascades.

MOUNT HOOD.

The same remarkable mountain that had been seen from Belle Vue Point, again presented itself, * * * * * ; and though the party were now nearer to it by seven leagues, yet its lofty summit was scarcely more distinct across the intervening land which was more than moderately elevated. Mr Broughton honored it with Lord Hood's name; its appearance was magnificent and it was clothed in snow from its summit, as low down as the high land, by which it was intercepted, permitted it to be visible.

Such are the words in which Vancouver christened Mount Hood, the most beautiful and graceful of the northwestern peaks.

Who that has seen this clear-cut, sharp cone of marble, from Portland, has not felt it worth a long journey to be permitted to look upon it? Of

MOUNT HOOD.

the four mountains here mentioned it is third in height, being 11,225 feet above the sea. It is at all times an object to enthuse, to inspire, but it is especially grand at sunrise or sunset.

For the tourist, Hood is the most easily accessible of the mountains named.

By train one is transported to Hood River Station, on the O. R & N. Railway, thence by good stage coaches to Cloud Cap Inn, a comfortable, rustic-like hotel, 7,000 feet above sea level. The Inn is a picturesque

arrangement of silver fir-logs, securely built on the north edge of the mountain. Within a short walk of it is Eliot Glacier. From the Inn, horses can be used for a distance, in the climb to the summit, more than 4,000 feet above the hotel. The climb is not a difficult one for most persons, and can be made in from five to six hours.

The first ascent of Hood was made, it is stated, in August, 1854.

It was in July, 1894, that the Mazáma — mountain goat — Club was organized on the summit of Hood, amid its glaciers and craters. There were 155 men and 38 women who made this ascent, in regular, old-fashioned mountaineering style, and thus became charter members.

Such mountaineering is the best of physical exercise, and it broadens one's sympathies and humanities, and strengthens the mind.

A noble quartette these grand old giants form. Once, indeed, belching volcanoes, now whitened, shrouded spectres, silent save for the thunders of the avalanche.

Travelers to the coast can be thoroughly equipped for a climb among the clouds that overhang them, at Seattle, Tacoma, or Portland. Guides, alpenstocks, ice-picks, and pack outfits can be arranged for at short notice and at reasonable rates.

The mountaineer who has never scrambled among glaciers or listened to the music of the avalanche is only half a mountaineer.

THE HEART OF THE OLYMPICS

"Or lose thyself in the continuous woods,
Where rolls the Oregon, and hears no sound
Save its own dashings."

—BRYANT, "Thanatopsis."

"FIFTY-FOUR-FORTY or fight." Such was the slogan with which, strange to say, both the Democratic and Whig parties entered upon the Presidential campaign of 1844. This was half a century ago. The old actors are gone, a new generation now treads the boards, both political and commercial. Look for a moment at a few of the former. Daniel Webster, Thomas H. Benton, John C. Calhoun, James K. Polk, Henry Clay, James Buchanan, Robert C. Winthrop, and Rufus Choate were a few of the intellectual giants whose voices were heard in the political arena in those days.

Great was the tumult and excitement over the words quoted. And what was it all about? A vast territory of deserts, impassable mountains, worthless forests — such was what it was *then* thought to be. *We* know it to be a magnificent domain — one of great present worth, and grander possibilities to come. "Fifty-four-forty or fight"— either place the northwestern boundary line from the Rocky Mountains to the Pacific, on the parallel of latitude of 54° 40′, or war; such was the ultimatum it was desired to lay down to England.

The boundary was *not* placed at 54°40′ but at 49°, and no war resulted, either. Had the people of that day and generation *known* what vast wealth in minerals and forests the old Oregon of '44 and contiguous territory possessed, to say nothing of its prospective value agriculturally, there would undoubtedly have been another and higher boundary line or a fight sure enough. But they didn't. Benton said in 1825, "The ridge of the Rocky Mountains may be named without offense as presenting a convenient and everlasting boundary. Along the back of this ridge the western limits of this Republic should be drawn and the statue of the fabled god Terminus should be raised upon its highest peak, never to be thrown down."

Benton learned better than this afterward, but in 1844 Webster, in a speech to the Senate, fairly represented the general idea regarding the Oregon country prevalent even then. He said, "What do we want with this vast, worthless area, this region of savages and wild beasts, of deserts,

of shifting sands and whirlwinds of dust, of cactus and prairie dogs? * * * * * What can we ever hope to do with the Western coast, a coast of three thousand miles, rock-bound, cheerless and uninviting, and not a harbor on it?"

In the summer of 1896, after steaming over Puget Sound, with its many lighthouses to guide the mariner safely on his way, as I stood on the heights of Port Angeles,—An'gle-ess, not An'jel-eez—Washington, and saw before me a harbor so good that Rear-Admiral Beardslee, of the Pacific squadron, United States Navy, brought the squadron there to spend the summer in drill and evolution; and as I even then saw before me, gracefully resting upon the smooth waters, the flagship Philadelphia, the coast defense steamer Monterey, the monitor Monadnock, and the gun-

1. HOTEL ALBANY, PORT ANGELES.

2. U. S. NAVAL VESSELS IN PORT ANGELES HARBOR.
Steamer to left, "Monterey."
Steamer in Center, "Monadnock."
Steamer to right, Flagship "Philadelphia."

3. PORT ANGELES HARBOR, WASHINGTON.

boat Bennington, clean, and white, and powerful, I thought of what the great expounder had said and wondered what he *would* say could he but gaze upon the spectacle.

Beyond the low, long, and narrow sandspit that forms the harbor was the wide strait of Juan de Fuca, and through the middle of it ran the boundary line so long the bone of contention between the mother country and her vigorous daughter. As I looked out across it I saw a ship go sailing in, perchance exactly upon the imaginary line itself.

Port Angeles—Port of the Angels—was not inappropriately named by the old storm-tossed, weather-beaten Spanish navigator who a century ago found it, as many others have since, a haven of refuge. It has had a

peculiar history. Before 1890 the number of "angels" living there was a few hundred, now it is a fairly prosperous community, with several thousand hospitable people, and shingle mills, saw mills, canning factories, etc., growing up.

The ground for the town was set aside from public entry by President Lincoln early in his administration. There he purposed building a model city having a fine harbor, for the protection of northwestern interests. The harbor has twelve square miles of deep anchorage. The spit, at the end of which is the Ediz lighthouse, is 1,200 feet wide at the shore end, 200 feet in width at the narrow end, and extends into the strait nearly parallel to the shore about three and one-half miles. The climate here is delightful. The warm Japan Current makes it semi-tropical. Vegetation is luxuriant. Frost comes late in October and disappears by April 15th. Flowers, fruits, vegetables, grain, etc., grow to perfection.

Salmon, trout, clams, etc., are found in the waters. From the Angeles Bluffs, Mount Baker, the grand, hoary old peak of the Northern Cascades, can be seen in all its majesty. The south shore of Vancouver Island lines the farther side of Fuca's Strait, and in the evening the lights of Victoria, B. C.,—fifteen miles away—can be seen. And the forests—where will the eye of man rest upon grander, nobler trees? A "vast, worthless area—a region of savages and wild beasts and deserts," forsooth. Oh, Webster, Webster! grand and intellectual as thou wert indeed, an expounder of the sublime old Constitution beyond compare, little didst thou reck of what thou saidst, else wouldst thou not unwittingly have perpetrated such slander upon so fair a land, such libel upon the Almighty who made it.

The Olympic Range occupies pretty generally the region west of Puget Sound and between the Strait of Fuca and Gray's Harbor. The highest peaks are well to the north, and range from 8,000 to 9,000 feet above sea level. Glaciers and snow fields predominate in the higher altitudes; lakes that enrapture are found at the lower levels; the streams are brawling brooks and rivers that tumble over rock ledges and thunder through the wildest of gorges; the slopes are covered with what is said to be the finest timber in Washington, and Alpine valleys of surpassing loveliness are found below the glacial fields and above the streams.

ELK HUNTING IN OLYMPIC RANGE.
MIRROR LAKE, OLYMPIC RANGE.

Thousands of elk and deer are found in the mountains, and many bears, mountain lions, and wild cats. Grouse and ptarmigan are plentiful.

ABOUT LAKE CRESCENT.

Leading west from Port Angeles is a mountain road, the best road of the kind I have ever seen. Not only this, but it is also relieved by bits of delightful landscape. A few hills; long stately curving avenues through the forest; a long, curved bridge, spanning the lovely Elwah River and valley, are appreciable adjuncts to the ride. Where the road descends the mountain, sixteen miles from Angeles, to Lake Sutherland a small lake near Lake Crescent, there is unfolded one of the daintiest scenic treats one may hope to see. It is a veritable tid-bit of its kind. The lake is about three miles long, east and west, narrow, and literally hemmed in on the north, east, and south sides by the mountains. At the west end a gap in the hills provides a vista that extends far away into the range.

Down in the beautiful valley, almost hidden by trees, a rough but roomy house betokens the only sign of humanity — save the road — in the solitude of the wilderness. Two miles farther on, and Lake Crescent laughs and sparkles in the gloaming.

Lake Crescent is about nine miles long. The shore line is all of thirty miles. At the narrows the lake is about one-half mile wide, and the average width is perhaps two and one-half miles. Admiral Beardslee has sounded it to a depth of 600 feet without touching bottom. The color of the water indicates great depth. It is of that deep ultramarine blue so characteristic of Lake Tahoe in the Sierra Nevadas, and Lake Chelan in the Cascades, both very deep lakes. The lake is crescentic in shape, and from this fact it is said to derive its name.

The mountains rise in huge and steep masses from the water's edge. From the eastern end, at Fisher's, they appear to swell upward in oblong and sugar-loaf forms, with slight benches at intervals of many hundreds of feet. The trees, stiff pike-like fellows, range from the water to the summit. At Fisher's, Fairholme on the extreme western end, and at the outlet at Lyre River, there are level areas of limited extent, beautiful cottage sites. Every foot of land on the shores of beautiful Crescent suitable for the purpose, has been taken up for cottage purposes.

At daybreak the morning after arrival, we look eagerly out upon the lake we have come so far to see. Ah! something besides a beautiful lake, mighty mountains and trees, we discern. Clouds, and weren't they beautiful! Whether it were a feeling of jealousy, as it were, that incited them to hide from us as much as it were possible of the wild landscape before us; whether it were a selfishness born of a fondness for the grim

old mountains, or whether indeed it were from a supreme sense of the fitness of their presence, we shall never know. An element of grandeur and beauty was, however, added to an already striking scene.

> "Here lifts the land of clouds! The mantled forms,
> Made white with everlasting snow, look down
> Through mists of many cañons" . . .

As our launch carries us well within the mountain labyrinth, we realize more and more the subtle charm that seems to brood over lake and crag.

A solitude deep and pervasive hovers around, broken only by the short, asthmatic wheeze of the steamer's exhaust.

We reach the narrows. Space is contracted; the tree-barbed heights climb higher overhead; the white clouds lie heavily banked about the 'pinging crags, or float gauzily in torn tresses among the tree tops.

Onward still! To the left the mountains now rear themselves in black, ponderous profiles, their sharp, jagged peaks piercing through the misty veil that would fain enwrap them.

But look there, still farther back! Crowning the vast masses that crowd toward the zenith, far beyond and above them, towering a giant among giants, peerless, proud, haughty, grand, and to-day gloomy, rises noble old Storm King, its haystack-like rock 3,000 feet above us.

In a circular bowl-like recess underneath the Storm King, the white cumulus clouds are densely packed, concealing much of the topography. We can, nevertheless, discern that there are in this part of the range black, ram-like headlands, with deep recessive gulfs — sleeping nooks, where the clouds still lie in whitened splendor.

Here and there is flashed the silvery trail of a creek, leaping from the dark alcoves above, among the trees, in a long tenuous cascade, hundreds or even a thousand feet to the lake.

The shores of the lake have numerous little capes, with quiet bays between. One of these is Madrona Point, so named from a madrona tree that grows out over the water. At the base of Pyramid Mountain is Idlewild, a romantic spot, and a little farther along is the Giant's Stairway, an interesting formation in the solid rock.

From Fairholme at the western end of the lake, the finest view probably is obtained. The long timbered noses of the mountains are thrust out into the air, and overhang the water, to which they descend in curves of magnificent sweep. Storm King and his group of lesser peaks form the distant mountain wall. This view is particularly fine at evening, when the purple haze, softened by the declining sun, seems to enwrap the neighboring mountains in a delicate veil, which grows more palpable as distance is added to the picture.

LAKE CRESCENT AND VICINITY.

1. BREAKERS AT MOUTH OF ELWAH RIVER. 2. MARYMERE FALLS, NEAR LAKE CRESCENT, 180 FT. 3. BRIDGE OVER ELWAH RIVER, ON WAY TO LAKE CRESCENT.
4. FAIRHOLME AND LAKE CRESCENT. 5. THREE FALLS, SOLDUCK RIVER.

"Grand here the scenes that burst upon his view,
Fair too the scene outspreading far and near,
The tumbling brook that leaps from crag to crag,
The wide, undimpled lake, whose lucent sheet
Reflects the bending forests of the shore;
While high above him spreads a canopy,
Of heavenly azure and celestial light."

From Fairholme a well traveled and well kept trail twists far back into the mountains — into the wild magnificence, the tangled, devil's club brakes, the glens and fastnesses of nature, where "every prospect pleases and only man is vile." For sixteen miles the trail winds through the forest. Giant firs and spruces, pines and hemlocks, and cedars lift themselves aloft 100, 150, 200, and in many cases nearly or quite 300 feet. Great monsters of their kind eight, ten, twelve feet or perhaps more in diameter, straight as if plumbed by the Almighty, of a royal dignity that impresses man with a sense of his own littleness, we can well understand that we are riding through the heart of the finest timber belt in Washington. What a mute, but no less emphatic, protest each of these noble forest kings is to that libelous utterance of Webster's!

At the end of the day's ride we are at the Hot Springs of the Solduck River. At intervals along the trail we have found timber-claim cabins, and in the clearings the advance guards of civilization, pushing westward as was the case with our forefathers 100 years ago in the forests bordering the Atlantic. Now we are in the heart of the glorious hunting country. On the flanks of the mountains 1,000 or 1,500 feet above the Springs are beautiful mountain valleys and plateaus, and among these and in the timber the elk and deer range. The Springs, of medicinal virtues, have a private ownership, make delightful bathing, and form a good rendezvous for fishing and hunting parties.

REAR-ADMIRAL L. A. BEARDSLEE.

Rear-Admiral L. A. Beardslee ("Piseco"), United States Navy, has recently brought the Lake Crescent region into marked prominence in a piscatorial way. He is an enthusiastic fisherman, has angled in the best waters of the globe, and nowhere has he found such sport as in Lake Crescent. But I will let him tell the story in his own words.

I have made four visits to Lakes Crescent and Sutherland — two in October, 1895, and two in August, 1896.

My first trip was to Lake Sutherland alone, and was a very successful one as far as the number of fish taken was concerned, but I got no very large ones — the largest taken by

any of my party weighing 4½ pounds. It was a speckled trout; but in our catch (two boats) of about 150 trout in two days, there were many of over two-pounds weight; our total catch of about seventy-five pounds consisting of speckled, mountain, and silver trout, with two or three cut-throats.

We caught few with the fly, but as our outfit consisted of small gnats, caddis, ants, etc., we could hardly expect many, as the trout were feeding on large white butterflies, which were constantly lighting or falling on the surface on which there was considerable ashes from forest fires. I was informed that in the spring the fish rise readily, and fly-fishing is excellent.

On October 27th, in company with Mr. M. J. Carrigan, I made my first visit to Lake Crescent, and my first fishing was on the 28th — a date which local prophesiers at Port Angeles pronounced too late; and so it seemed, for nearly all of that day, which was raw and chilly with an east wind, and up to 4 P. M. we caught scarcely a dozen small trout. At that hour the wind changed to the westward and almost simultaneously I hooked and caught a large blue-back at a depth of perhaps thirty feet, and from that time until dark, about 6 P. M., one or the other of us was steadily busy with mates to my first. We caught six fish, all blue-backs, weighing from 6 to 11½ pounds, and from 22 to 32½ inches in length. Our longest was not the heaviest; he weighed but 10¾ pounds; he was a spent male, considerably scarred. Our heaviest, 11½ pounds, was a female 30 inches long. Our fishing was done by trolling — two surface spoons from rods, one hand line of copper at an average depth of thirty feet, and on this latter all the large ones were taken.

I was fully satisfied that not only the blue-backs but several others of the fish were as yet new to science, and so wrote to Prof. David S. Jordan, enclosing photos taken some time after catching. Not having sent him specimens, the professor did not give a positive answer. In accordance with arrangements, Mrs. Geo. E. Michell, the wife of the postmaster at Fairholme at the head of the lake, an ardent and skillful angler, undertook to supply Professor Jordan with the necessary trout, and on the 12th of March, 1896, a date much earlier than I can find authentic record of trolling on the lake, she caught, with a Tahoe spoon and line, two specimens of the blue-back and one of the speckled — the former about 18 inches and the latter 16 inches long. These we sent to Professor Jordan and in his notes on fishes new or little known, he says:

"I find myself forced to agree with Admiral Beardslee in the opinion that each of these forms is distinct from any previously recorded or named," and he eventually named them thus: The Blue-back, *Beardsleei*; the Speckled, *Crescentis*; and thus they now stand.

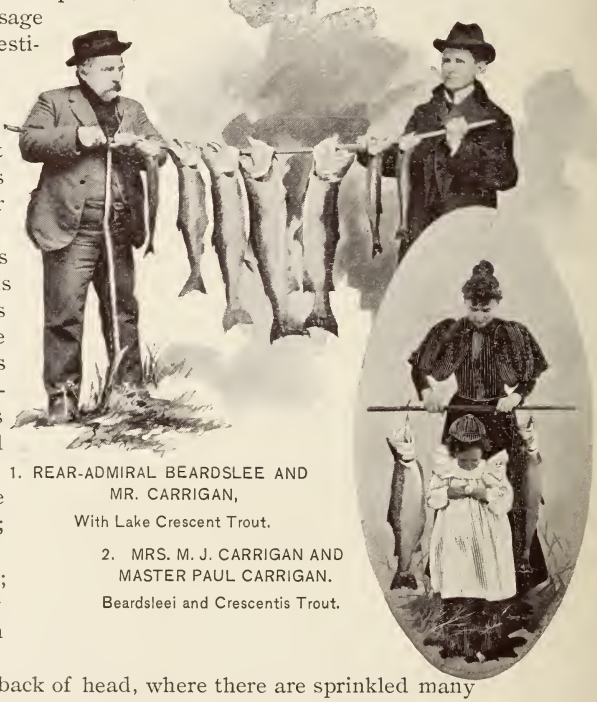
Mrs. Michell's success was followed up, and in the course of a few weeks she had supplied Professor Jordan with a 14-pounder. Quite a number of others of from 10 to 15 pounds weight had been taken, the principal capturers being Mrs. Michell, Mrs. Carrigan, and Miss Sara Beasley of Missouri, who, on March 27th, took the largest speckled trout of which I can obtain record. It was 27 inches long and weighed 8 pounds.

During the summer months, the big ones ceased to bite, although surface trolling continued successful. I visited the lake August 14 and 15, 1896, and had excellent sport, trolling in the deep water, fly casting and surface trolling in the shoal. August 29th and 30th I again put in a couple of days. All over the lake medium-size Beardsleeis were striking. They were feeding on a bug locally known as the Stink Bug, of which there were great numbers blown from the shore, and on the small trout which in schools were also feeding on the bugs. I caught very few in the forenoon. The moon was nearly full and the fish had fed all night and were gorged. In the afternoon the fishing was excellent, we boating twenty-six that would average over a pound, in rowing from

one end to the other of the lake. I undoubtedly would have had many more but that I was devoting my time to slow rowing and deep trolling for large ones. From these I had no response until the afternoon of the 30th, when I had three unmistakable tugs and brought a Beardsleei, which probably weighed 10 or 12 pounds, so near to my gaff that I felt too sure of him. The big fish got away, but he left with me the certainty that they had again begun to take hold now that the summer rest was over, so when Messrs. James C. Hart and B. Dunn, members of the Caledonian Club of Rochester, N. Y., and H. O. Wilbur of Philadelphia, Pa., arrived at Port Angeles on the 7th of September and informed me that they had come all the way from the East to catch one or more of the big Beardsleeis described in my letters to "Forest and Stream," I felt that the journey might not have been made in vain. And I was right. To-day is the 10th of September, and yesterday I received from the lake a box of trout in which there was one Beardsleei taken by Mr. Hart, 29½ inches long, and weighing 13½ pounds; one 29 inches long, weighing 8½ pounds, and several from 4 to 6 pounds, all taken on the 6th. The successful anglers sent me the cheering message that I had much under, rather than overestimated, the resources of the lake.

From my own experience I state that in this lake I have caught a larger variety, and greater number of large trout than in many other of the fishing resorts of the world combined, in much longer time.

The Blue-back, or Beardsleei, deserves the precedence I have given him. He is the distinctive trout of the lake. There is nothing like him anywhere else, and he can not be mistaken for any other. He is a most vigorous fighter, and a two-pounder on a fly rod means an hour's work. He is the best table fish found there, and his description is as follows:



1. REAR-ADMIRAL BEARDSLEE AND MR. CARRIGAN,
With Lake Crescent Trout.

2. MRS. M. J. CARRIGAN AND MASTER PAUL CARRIGAN.
Beardsleei and Crescentis Trout.

BLUE-BACK.—*Blue-back Trout*—Lake Crescent, Washington. Specimen female; 28½ in. x 8 in.; weight, 11½ lbs.

Body — Short for weight; thick-set; short head; ova apparently not entirely developed; eggs about half size of salmon of same weight.

Back—Deep indigo blue, deepest on back of head, where there are sprinkled many round black spots about the size of No. 4 shot. Gill-covers smooth and pearly, free from spots. At about medium line the blue lightens into a pearly, silvery tint which in the sunlight has an iridescent pinkish hue which is not visible in the shade. The belly is white.

Fins—The caudal is nearly as square as that of a *fontinalis*, except at the center there is a small V-shaped notch; it and the dorsal fin are brown, profusely black-spotted. Pectorals, ventrals, and anals nearly colorless, but with slight brownish hue. No spots and no border color on edges. There are eleven rays in the dorsal fin, thirteen in pectoral.

Flesh—Uncooked, pale lemon color, bleaching to white when cooked; hard, firm, and of most excellent flavor, in which the oily flavor of the salmon does not occur.

Scales—Very large for a trout, small for a salmon of the size.

I am told that it comes to the surface in spring, when it feeds on large white butterflies, then abundant; it does not leap for these, but will then take salmon or bass flies trolled slowly. In summer it seeks the deepest water and can not be, or rather has not been, taken with fly or surface lure, and is, as far as I can learn, of moderate weight, say two to five pounds.

In fall we found it a deep-water fish, touching none of our surface lures; caught at depths of from thirty to fifty feet; hard fighter when first hooked, boring and running deep; weakens as it nears surface, and is nearly exhausted when brought alongside.

The tackle that has proven the most satisfactory is:

Fly-fishing in the bays—large brown hackles, professor, white miller, and coachman.

Surface trolling—light rod; silk line; single salmon leader six foot; small oval skittering spoon of silver and copper, preferably in precedence: Al Wilson's, Fleugler, Emerich.

Deep trolling by hand—100-foot copper line, with 50-foot linen or cotton line at the hand, and in precedence, Tahoe spoon, silver and copper or brass, and almost any large three-hooked feathered spoon; on either or all a small strip of trout belly.

L. A. BEARDSLEE ("Piseco"),
Rear-Admiral U. S. Navy.

As this locality has but lately come into prominence it can well be understood that accommodations for tourists and anglers are not now what they will be. Such persons can, however, be comfortably entertained, in moderate numbers, at the present time. There are two small steam craft on Lake Crescent. Parties who purpose visiting this spot can address Mr. M. J. Carrigan, agent Northern Pacific Railway, Port Angeles, Wash., or Mr. Geo. E. Michell or Mr. Ben Lewis, Fairholme, Wash.

"IN THE LAND OF MIST AND SNOW"

—"ANCIENT MARINER."

"To see the Muir Glacier is an event in one's life, like seeing St. Peter's at Rome or the Taj in India."—Dr. H. M. Field.

WHO has not been forcibly, weirdly impressed by Coleridge's quaint description of the woes of the Ancient Mariner "in the land of mist and snow?"

Think not, oh reader, that this is another such tale. It is a land of mist and snow, truly, that I would describe; but it is also much more. A land of mist and snow is not necessarily a cold nor disagreeable land. Were it not for the snow and the mist there would be no Muir Glacier, and therefore no such treat in store for you as Doctor Field so pointedly indicates in the foregoing excerpt.

"St. Peter's at Rome or the Taj in India," two of the world's grandest specimens of architecture. And what is the Muir Glacier, if not one of nature's grandest architectural efforts? True, it is not a noble building, ornately embellished and delicately sculptured, but it is a fabrication of such immortal design that the hand of man will never attain to it. "The land of mist and snow," or, to be brief—Alaska.

How far away it used to seem. What a feeling of incredulity passed over the country in 1867, when it was known that Secretary Seward had purchased it for $7,200,000 *gold*. We didn't know so much then about the seal fisheries. There were not so many sealskin cloaks seen on the streets in those days. Neither did we know of the gold fields, nor of the valuable salmon fisheries.

Miner W. Bruce, in his recently published "Alaska," refers thus to the report of a special agent of the Treasury Department, on Alaska, made in 1869: "It says that at 6 per cent, interest on the $7,200,000 paid for the Territory, together with the expense of maintaining the government there, would amount in twenty-five years to the sum of $44,000,000." The annual income he estimates—liberally—at $110,000.

Bruce gives the following table of returns from this investment, compiled from official records:

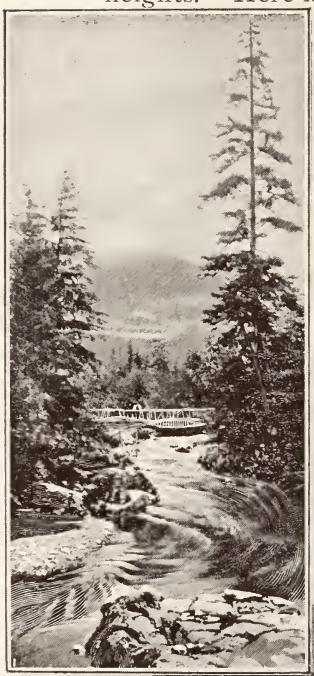
Furs	$53,000,000
Canned salmon	10,000,000
Whalebone	10,000,000
Gold and silver	6,000,000
Whale oil	3,000,000
Codfish	1,600,000
Salted salmon	800,000
Ivory	160,000
Total	$84,560,000

The Treadwell mine and mill he pronounces the greatest in the world, all things considered. The claim was purchased by John Treadwell from "French Pete," a miner, for $400. It is now pounding out gold in its 240-stamp mill at the rate of $70,000 to $80,000 per month continuously.

1. INTERIOR OF INDIAN HOUSE—SITKA.
2. LOG CHURCH AT JUNEAU.
3. TAKU GLACIER.
4. INDIAN TOWN AT SITKA, AND SNOW CLIFFED MOUNTAIN—ALASKA.

Gold was discovered near Sitka in 1873, near Juneau in 1880, and in the Yukon Basin in 1881. The Yukon mining has thus far been principally placer mining. What will be developed in the future can not now be forecasted. All indications point to Alaska becoming a great field for quartz mining.

Alaska is the tourist's paradise. Here is where the mountain systems of the United States seem to run together, to coalesce, and rise to loftiest heights. Here is the birthplace of the largest glaciers. There is great diversity of climate in Alaska. It must be remembered that the Japan Current — Kuro Siwo — exerts an ameliorating influence, especially upon the coast of Southern Alaska. This induces precipitation and a dense, perennial foliage. Vegetables and root crops grow prolifically, and strawberries are found under the shadows of the glaciers themselves.



The scenic features of Alaska have no counterpart elsewhere, in the eyes of experienced travelers. The tourist's trip begins at Tacoma, reaches its extremity at Sitka, and returns to Tacoma over a different route, partially. It is not an ocean voyage, but is over an inland sea where high mountains and innumerable islands make it one of pleasure and freedom from roughness. The various stopping places —Fort Wrangel, Juneau, and Sitka being the more important ones—are interesting and serve as brief resting-spots in the voyage.

The glacial scenery is, of course, the paramount feature of the trip, and of the

1. INDIAN RIVER—ALASKA.
2. GENERAL VIEW—TREADWELL GOLD MILL AND MINE.
3. WALK TO INDIAN RIVER—ALASKA.

many glaciers—Patterson, Davidson, Auk, Eagle, Malispina, Taku, etc.—the Muir is chief. Its front is two miles across and it towers 250 feet in the air, which means that 1,750 feet of it are under the water. Great blocks or chunks break from its top and go crashing into Glacier Bay, awaking the echoes for miles around. Its surface is covered with crevasses, and the tourist has an opportunity of climbing over it as the steamer lies at anchor in the bay.

The tourist season extends from May 1st to October 1st. The fine steamer Queen, is devoted to tourist travel only. The round trip requires about twelve days. Other steamers that make more frequent stops can be taken, thus prolonging the trip. The voyage to "the land of mist and snow" is indeed the trip of a lifetime.

Time, Rate and Distance Table to the Spokane-Kootenai Country.

Rates marked thus * are 1st class Unlimited. Grand Forks passengers are ticketed only to Marcus.

Rates are subject to change without notice further than that required by law.

FROM	TO	Northport, Wash.	Trail, B. C. Via Northport.	Rossland, B. C. Via Northport.	Nakusp, B. C. Via Northport.	Grand Forks, B. C. Via Marcus.	Nelson, B. C.	Kaslo, B. C.	Sandon, B. C. Via Nelson and Kaslo.	Sandon, B. C. Via Northport and Nakusp.
Portland, Ore.	Routes	N. P. Ry. S.F.& N.Ry	N. P. Ry. S.F.& N.Ry C.& K.S. N.Co	N. P. Ry. S.F.& N.Ry C.& R. M.Ry.	N. P. Ry. S.F.& N.Ry C.& K.S.N. Co.	N. P. Ry. S.F.& N.Ry Stage.	N. P. Ry. S.F.& N.Ry N. & Ft. S. Ry.	N. P. Ry. S.F.& N.Ry N & Ft. S. Ry. I.N.& T.Co.	N. P. Ry. S.F.&N. Ry N. & Ft. S. Ry. I.N.& T.Co. K. & S. Ry.	N. P. Ry. S.F.& N.Ry C. & K.S.N.Co. N. & S. Ry.
"	Distances — miles	674	702	690	816	686	744	784	813	857
"	Rates — 1st class Limited	$23.15	$24.15	$24.40	$24.15	$26.80	$26.15	$26.20	$26.20	$26.20
"	Time	1 day	1¼ days	1¼ days	1¾ days	1½ days	1¼ days	1½ days	2 days	2 days
Tacoma, Wash.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	530	558	547	672	542	600	640	669	713
"	Rates — 1st class Limited	*22.75	* 23.75	* 24.00	23.75	25.90	24.25	24.25	24.25	24.25
"	Time	1 day	1 day	1 day	1¼ days	1¼ days	1 day	1¼ days	1¾ days	1¾ days
Seattle, Wash.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	550	578	567	692	562	620	660	689	733
"	Rates — 1st class Limited	*22.30	* 23.30	* 23.55	23.30	25.45	23.80	23.80	23.80	23.80
"	Time	1 day	1 day	1 day	1½ days	1¼ days	1 day	1¼ days	1¾ days	1¾ days
Victoria, B. C.	Routes	P. S. & A.	S. S. Co. to	Tacoma or	Seattle; th	ence same	as from eit	her of thos	e points.	
"	Distances, via Seattle — miles	635	663	652	777	647	705	745	774	818
"	Rates — 1st class Limited	*24.80	* 25.80	* 26.05	25.80	27.95	26.30	26.30	26.30	26.30
"	Time	1¼ days	1¼ days	1¼ days	2 days	1½ days	2½ days	1½ days	2 days	2 days
Vancouver, B. C.	Routes	C. P. R., or C. P.	B. B. & B. R. and S.	C. R. R. a S. & I. Ry.	nd Gt. Nor. to Seattle;	Ry. to Sea thence sam	ttle; e as from t	hat point.		
"	Distances — miles	725	753	742	867	737	795	835	864	908
"	Rates — 1st class Limited	23.80	23.80	24.80	23.80	28.30	23.80	23.80	23.80	23.80
"	Time	2¼ days	2¼ days	2¼ days	3 days	2½ days	2¼ days	2½ days	3 days	3 days
San Francisco, Cal.	Routes	So. Pac. to	Portland; o	r Steamer t	o Portland	or Seattle;	thence sam	e as from ei	ther of tho	se points.
"	Distances — rail	1446	1474	1463	1588	1458	1516	1556	1585	1629
"	Rail Rates — 1st class Limited	43.15	44.15	44.40	44.15	46.80	46.15	46.20	46.20	46.20
"	2d class	38.15	39.15	39.40	39.15	41.80	41.15	41.20	41.20	41.20
"	Steamer Rates—1st class Lim.	34.30	35.30	35.55	35.30	37.45	35.80	35.80	35.80	35.80
"	2d class	28.30	29.30	29.55	29.30	31.45	29.80	29.80	29.80	29.80
"	Time — rail	2¾ days	3 days	3 days	3½ days	3 days	3 days	3 days	3¾ days	3¾ days

Time, Rate and Distance Table to the Spokane-Kootenai Country — *Continued.*

FROM		TO Northport, Wash.	Trail, B. C. Via Northport.	Rossland, B. C. Via Northport.	Nakusp, B. C. Via Northport.	Grand Forks, B. C. Via Marcus.	Nelson, B. C.	Kaslo, B. C.	Sandon, B. C. Via Nelson and Kaslo.	Sandon, B. C. Via Northport and Nakusp.
Helena, Mont.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	512	540	529	654	524	582	622	651	695
"	Rates — 1st class Limited	$26.10	$27.10	$27.35	$30.10	$29.25	$29.10	$30.10	$32.15	$32.15
"	Time	1 day	1¼ days	1¼ days	1¾ days	1¼ days	1¼ days	1½ days	2 days	2 days
Butte, Mont.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	515	543	532	657	527	585	625	654	698
"	Rates — 1st class Limited	26.15	27.15	27.40	30.15	29.30	29.15	30.15	32.20	32.20
"	Time	1 day	1¼ days	1¼ days	1¾ days	1¼ days	1¼ days	1½ days	2 days	2 days
St. Paul, Minn.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	1642	1670	1659	1784	1654	1712	1752	1781	1825
"	Rates — 1st class Limited	47.50	47.50	48.50	47.30	52.00	47.50	47.50	49.55	49.55
"	2d class	40.00	40.00	41.00	40.00	44.50	40.00	42.05	42.05	42.05
"	Time	2¾ days	2¾ days	2¾ days	3¼ days	3 days	2¾ days	3 days	3½ days	3½ days
Minneapolis, Minn.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	1631	1659	1648	1773	1643	1701	1741	1770	1814
"	Rates — 1st class Limited	47.50	47.50	48.50	47.50	52.00	47.50	47.50	49.55	49.55
"	2d class	40.00	40.00	41.00	40.00	44.50	40.00	40.00	42.05	42.05
"	Time	2¾ days	2¾ days	2¾ days	3¼ days	3 days	2¾ days	3 days	3½ days	3½ days
Duluth, Minn.	Routes	Nor. Pac.	Ry. to Spo	kane; then	ce same as	from Portl	and.			
"	Distances — miles	1648	1676	1665	1790	1660	1718	1758	1787	1831
"	Rates — 1st class Limited	47.50	47 50	48.50	47.50	52.00	47.50	47.50	49.55	49.55
"	2d class	40.00	40.00	41.00	40.00	44.50	40.00	40.00	42.05	42.05
"	Time	2¾ days	2¾ days	2¾ days	3¼ days	3 days	2¾ days	3 days	3½ days	3½ days

The Northern Pacific is the **direct** and **quick** line from both **Eastern** and **Pacific Coast** points to this mining region.

Send for our large and new relief map of that country.

CHAS. S. FEE,

General Passenger Agent, St. Paul, Minn.

NORTHERN PACIFIC RAILWAY.

Rates and Arrangements for the Tourist Season.

MINNESOTA SUMMER RESORTS

During the summer season the Northern Pacific Railway will sell round-trip excursion tickets from St. Paul or Minneapolis to Glenwood (Lake Minnewaska) at $5.25; Battle Lake, $7.50; Fergus Falls, $7.50; Perham, $7.75; Detroit Lake, $9.15; Minnewaukan (Devil's Lake) $18.65; Winnipeg, $22.50. From Duluth to Deerwood, $3.80; Battle Lake, $7.50; Fergus Falls, $7.50; Perham, $7.75; Detroit Lake, $9.15; Minnewaukan, $18.65; Winnipeg, $22.50. From Ashland, Wis., to Battle Lake, $9; Fergus Falls, $9; Perham, $9.25; Detroit Lake, $10.65; Minnewaukan, $20.15; Winnipeg, $22.50. Good going to Minnesota resorts one day (from Ashland two days), to Minnewaukan (Devil's Lake) and Winnipeg two days from date of sale. Good to return on or before October 31st.

YELLOWSTONE PARK RATES

The Northern Pacific Railway will sell round-trip excursion tickets from May 29th to September 28th (both dates inclusive) at the following rates:

A $47.50 round-trip ticket, St. Paul, Minneapolis, or Duluth to Livingston, or Mammoth Hot Springs and return, returning same route, or via Billings to the Missouri River. These tickets are limited to thirty days going, ten days returning, final limit, forty days.

A $5 ticket, Livingston to Mammoth Hot Springs Hotel and return, including rail and stage transportation.

A $49.50 ticket, Livingston to Cinnabar and return, Cinnabar to Mammoth Hot Springs, Norris, Lower and Upper Geyser basins, Yellowstone Lake, Grand Cañon, and Falls of the Yellowstone and return, including rail and stage transportation, and five and one-half days' accommodations at the Association hotels.

The $5 and $49.50 tickets on sale at eastern and western termini between dates first named above, at Livingston May 31st to September 30th, both dates inclusive, are good if used in the Park any time between June 1st and October 6th, both dates inclusive, and do not require identification of purchaser.

By payment of $22 at Mammoth Hot Springs Hotel, to the cashier of the Yellowstone Park Association, and of $22.50 to the manager of the Yellowstone National Park Transportation Company, having his office in this hotel, tourists not provided with regular Park tickets can secure transportation and hotel accommodations for the regular five and one-half days' tour.

The hotel service in the Park is now very complete. Tourists can stop at any of the principal points of interest with the assurance that comfortable accommodatoins will be supplied them.

MONTANA AND EASTERN WASHINGTON POINTS

The Northern Pacific Railway has on sale, at greatly reduced rates, round-trip excursion tickets from St. Paul, Minneapolis, or Duluth to Billings, Springdale, Livingston, and Bozeman, Mont.; Helena and Butte, Mont. (choice of routes returning, via Northern Pacific or Great Northern Railway lines); Missoula, Mont.; Spokane, Wash. (choice of routes returning, via Oregon Railway & Navigation Company and its connections, or via the Great Northern, or Northern Pacific lines); Medical Lake, Pasco, Kennewick, and Toppenish, Wash.; Nelson, Trail, Rossland, Ainsworth, Kaslo, and Sandon, B. C.; and Coulee City, North Yakima, and Ellensburg, Wash.

These tickets are of iron-clad signature form; require identification of purchaser at return starting point.

Any of the above tickets may read to return via Billings to the Missouri River.

NORTH PACIFIC COAST EXCURSIONS

A $90 round-trip individual excursion ticket, St. Paul, Minneapolis, or Duluth to Tacoma, Portland, Seattle, New Whatcom, Vancouver, or Victoria, is on sale daily at points first named and by Eastern lines.

Tacoma, Seattle, New Whatcom, Victoria, Vancouver, or Portland tickets, at above rates, will be issued, going via Northern Pacific, returning via same route, or Great Northern, or Soo-Pacific to St. Paul, Minneapolis, or Duluth; or via Canadian Pacific to Winnipeg or Port Arthur; or via Billings to the Missouri River; Portland tickets will also be issued, returning via Oregon Railway & Navigation Company and its connections to either Omaha or Kansas City, or to St. Paul via Sioux City.

CONDITIONS

Above tickets limited to nine months from date of sale, good, going trip, sixty days to any one of North Pacific Coast termini named, returning any time within final limit.

ALASKA EXCURSIONS

An excursion ticket will be sold from Eastern termini named to Sitka, Alaska, at $170, which rate includes meals and berth on the steamer. Tickets on sale May 1st to September 30th. Limit, nine months. Going to Tacoma, sixty days, returning within final limit, holder to leave Sitka on or before October 31st. Tickets will be issued to return either via the Northern Pacific, Soo-Pacific, or Great Northern lines to St. Paul or Minneapolis, or via Canadian Pacific Railway to Winnipeg or Port Arthur. Usual stop-over privileges granted. Steamer accommodations can be secured in advance by application to any of the agents named below. Diagrams of steamers at office of General Passenger Agent at St. Paul.

"TO THE WESTWARD"

The Alaska Commercial Company's steamer Dora will sail from Sitka to Unalaska, in Bering Sea, 1,300 miles distant, on or about the 8th of April, May, June, July, August, September, and October, stopping at Yakukat, Prince William's Sound, Cook's Inlet, Kodiak, Karluk, and Unga. Close connection is made with Pacific Coast Steamship Company's vessel City of Topeka at Sitka. The steamer Dora has accommodations for twenty-two cabin passengers. Round trip is made in from twenty-five to thirty days, three days of which time are spent at Unalaska. Round trip from Sitka, including berth and meals on boat, $120. (There is also steerage rate of $80 for round trip, there being accommodations for thirty-five passengers.)

CALIFORNIA EXCURSION RATES

The Northern Pacific Railway will sell round-trip excursion tickets from St. Paul, Minneapolis, or Duluth as follows:

To San Francisco, going via the Northern Pacific, Seattle, and steamer, or Portland and the Shasta Route, or the ocean to San Francisco; returning via rail or steamer to Portland, or via steamer to Seattle, and the Northern Pacific, Great Northern, or Soo-Pacific lines to St. Paul or Minneapolis; or via Canadian Pacific to Winnipeg or Port Arthur; or via Billings to the Missouri River; or via rail or steamer,

Portland and Huntington to the Missouri River; or returning by the southern lines to Council Bluffs, Omaha, Kansas City, Mineola, or Houston, at $103.50; to New Orleans or St. Louis, at $109.50.

To Los Angeles, going via Portland and Shasta Route, and returning via rail, Portland and the Northern Pacific, Great Northern, or Soo-Pacific lines to St. Paul or Minneapolis; or via Billings or Huntington to the Missouri River, at $122.50; or going via Portland and Shasta Route and returning via San Francisco and Ogden to Council Bluffs, Omaha, or Kansas City, at $113; to St. Louis, at $119.

To San Diego, going via Portland and rail through Los Angeles, and returning via rail, Portland and the Northern Pacific, Great Northern, or Soo-Pacific lines to St. Paul or Minneapolis; or via Canadian Pacific to Winnipeg or Port Arthur; or via Billings or Huntington to the Missouri River, at $129; or going via Portland and Shasta Route and returning via San Francisco and Ogden to Council Bluffs, Omaha, or Kansas City, at $119.50; to St. Louis at $125.50.

Tickets via ocean include meals and berth on steamer.

At the eastern termini of the southern transcontinental lines excursion tickets will be sold, or orders exchanged, for tickets to San Francisco, returning via either the Shasta Route, the all-rail line to Portland, or the ocean and the Northern Pacific to St. Paul, Minneapolis, or Duluth, at a rate $13.50 higher than the current excursion rate in effect between Missouri River points, Mineola, or Houston and San Francisco. The steamship coupon includes first-class cabin passage and meals between San Francisco and Portland.

Return coupons reading from Missouri River points to Chicago or St. Louis will be honored from St. Paul or Minneapolis, either free, or with a small additional charge, according to route.

These excursion tickets allow nine months' time for the round trip; sixty days allowed for west-bound trip up to first Pacific Coast common point; return any time within final limit.

District Passenger Agents.

F. A. GROSS, 230 Washington Street, Boston, Mass.
J. H. ROGERS, JR., 47 South Third Street, Philadelphia, Pa.
L. L. BILLINGSLEA, 47 South Third Street, Philadelphia, Pa.
CHAS. E. JOHNSON, 817 Carnegie Building, Pittsburg, Pa.
WM. G. MASON, 215 Ellicott Square, Buffalo, N. Y.
THOS. HENRY, 128 St. James Street, Montreal Que.
W. H. WHITAKER, 153 Jefferson Avenue, Detroit, Mich.
JNO. E. TURNER, 42 Jackson Place, Indianapolis, Ind.
C. G. LEMMON, 208 South Clark Street, Chicago, Ill.
J. N. ROBINSON, 377 Broadway, Milwaukee, Wis.
P. H. NOEL, 210 Commercial Building, St. Louis, Mo.
J. J. FERRY, 32 Carew Building, Cincinnati, Ohio.
O. VANDERBILT, 503 West Locust Street, Des Moines, Iowa.
GEO. W. McCASKEY, Butte, Mont.
GEO. D. ROGERS, St. Paul, Minn.
F. C'NEILL, 255 Morrison Street, Portland, Ore.
E. L. RAYBURN, Traveling Passenger Agent, 255 Morrison Street, Portland, Ore.

General and Special Agents.

W. F. MERSHON, General Agent Pass'r Department, 319 Broadway, New York City.
F. H. FOGARTY, General Agent, 208 South Clark Street, Chicago, Ill.
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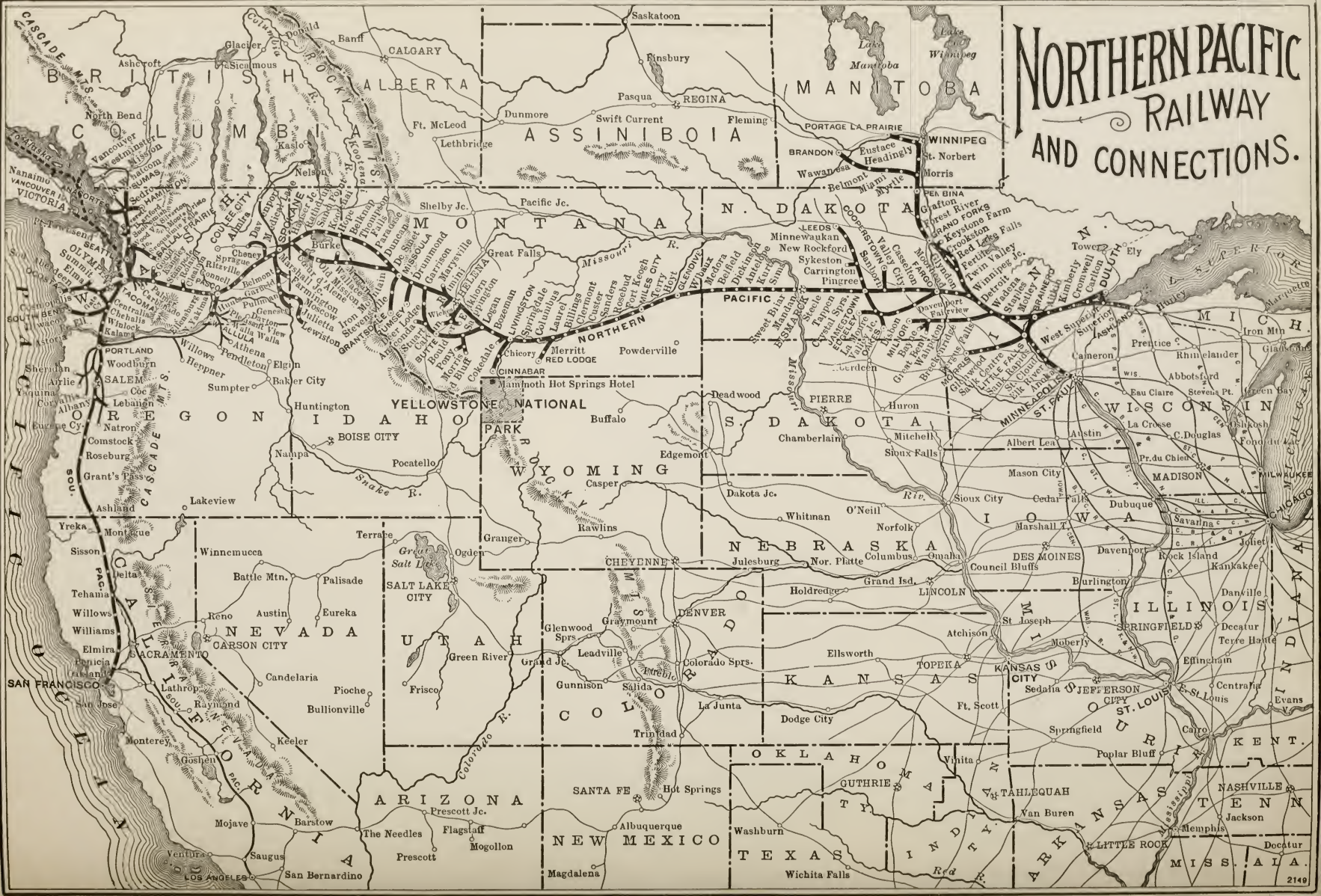
A. D. EDGAR, General Agent, Helena, Mont.
W. M. TUOHY, General Agent, Butte, Montana.
F. D. GIBBS, General Agent, Spokane, Wash.
I. A. NADEAU, General Agent, Seattle, Wash.
A. TINLING, General Agent, Tacoma, Wash.
T. K. STATELER, Gen'l Agent Pass'r Department, 638 Market St., San Francisco, Cal.
A. D. CHARLTON, Assistant General Pass'r Agent, 255 Morrison St., Portland, Ore.
B. N. AUSTIN, Assistant General Passenger Agent, St. Paul, Minn.
A. L. CRAIG, Assistant General Ticket Agent, St. Paul, Minn.
CHAS. S. FEE, General Passenger and Ticket Agent, St. Paul, Minn.
J. M. HANNAFORD, General Traffic Manager, St. Paul, Minn.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